

JOYFUL PARTICIPATION IN NEW WAYS OF DESIGNING AND MAKING CLOTHES.

ENABLING PERSON-PRODUCT ATTACHMENT
TO POTENTIALLY REDUCE UNNECESSARY
CONSUMPTION.



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PART I

ABSTRACT & INTRODUCTION

01 /

ABSTRACT

This master's thesis investigates design opportunities to motivate and enable sustainable consumer behaviour, especially regarding wasteful fashion and clothing consumption. A literature review provides a theoretical framework and builds background knowledge for three explorative case studies. These practice-led case studies gradually increase the user-involvement in sustainable consumption behaviour. Each case study elaborates a particular research question, evaluating the opportunities to change consumer behaviour with a different design approach. The case studies build upon one another, thus the third case study is discussed in most detail. Selected findings from these three case studies provide an insight to the possi-

bilities of design for person-product attachment with participatory design concepts like 'half-way products': design objects which are intentionally 'unfinished'.

The conclusion drawn is that designers can enable a joyful participation in clothes making, for example with half-way products, and thus foster a stronger emotional value towards garments. This emotional value is likely to facilitate a stronger person-product attachment and encourage longer lasting products. Additionally, the research shows that the participatory design concept – 'half-way product' was very much appreciated. The study concludes with possible future prospects.

INTRODUCTION

The emerging sustainability crisis requires new ways of design which will influence consumer behaviour and industry strategies. The combined studies of design and sustainability approach this challenge through open-minded, new and innovative ideas and working positions. The designer's ego has to take second place, we must challenge current system practices and discover new ways of applying design skills. We as designers can benefit from our knowledge and creativity to foster sustainable development. This master's thesis is my personal exploration of using my skills and interests to discover new ways of designing and facilitate a change in the behaviour of fashion and clothing over-consumers.

As a media designer working for an advertising company, I experienced at first hand how designers' skills are used to target and manipulate potential consumers. This practice was not compatible with my personal values and ethics. During my undergraduate studies, I had already explored the aspects of ethical consumption and media influence on consumer behaviour. This master thesis goes a step further and challenges me to break with my earlier way of thinking by encouraging a transition towards sustainable consumer behaviour.

Can design become a tool to reduce fashion overconsumption? Tim Jackson states that consumer behaviour can be a key factor in "the impact that society has on the environment" (Jackson, 2005, 5). The primary cause of the current crisis in sustainability is human behaviour; while better technology and production systems are a step in the right direction, they provide only a limited solution (Chapman, 2009, 29). Accordingly, Niinimäki (2010) points out that if there is to be a shift

towards a more ethical and sustainable fashion industry, the current system based on industrial mass-production, low quality, low prices and fast disposal of products needs to slow down and stimulate change. This change must be driven by the different parties involved, among them designers as well as consumers.

Based on the reviewed literature, I propose a more valued and meaningful person-product attachment as a possible solution for a change in consumer behaviour. This attachment to a product has to be considered early in the design process, and this is the challenge to be investigated within this research. Among other strategies, this study focuses on creating person-product attachment with positive experience through user-participation in the design and production of a garment. I focus on motivating user-participation through a collaborative process that is enjoyed by designer and consumer: joyful participation. This positive experience is expressed through enjoyment, happiness and joyfulness during and after the participatory design process.

This user-participation in the design process is facilitated through the development of 'half-way products': design objects which are intentionally 'unfinished'. Most of the research in fashion and clothing consumption has focused on analysing person-product attachment and the life-cycle of ready-to-wear products which are already owned. In the field of fashion and clothing, very little

research has been conducted on the subject of half-way garments and the opportunities for creating a valued person-product attachment using the participatory design approach.

This study focuses on the problem of fashion and clothing overconsumption and how it can be tackled by a change in the distinct habits and behaviour of the individual. To achieve a deeper understanding of the drivers of consumer behaviour, I first review some of the literature on this topic in the fields of social sciences, consumer psychology and design theory.

This constitutes Part I of the study: the theoretical framework which offers a deeper insight into consumers' needs, wants and motivations in order to identify possibilities for change. This part concludes with a summary leading to Part II: the explorative case studies which build upon a 'process map to trigger action'. Part II comprises three explorative case studies with correlating research questions. These case studies are of experimental nature and are evaluated according to qualitative research methods. A central goal of the study is to contribute to the research carried out in the area of design activism, and to show how designers can foster person-product attachment using participatory design and half-way products.

On the basis of the theoretical framework outlined in Part I, I define a series of methods to change consumer behaviour, which build upon one another. These methods are evaluated through the

three case studies with their correlating research questions. The first case explores how graphic design can encourage sustainable consumer behaviour through consumer education.

The second case elaborates how to effectively communicate the local and ethical provenance of a product in itself, and thus enable a sense of consumer attachment towards it.

In the third case study, I conclude that the greatest learning effect, and the deepest person-product attachment, can be created through empowering consumer participation in the design process. Already in 1980 discussed Alvin Toffler a change in consumers' role towards 'prosumers': individuals who produce and consume products (Toffler, 1980). Therefore, the third case study strives for empowering the consumer to become an active user, co-designer/co-maker and thus gain more independency from the fast fashion system. I want to evaluate if this consumer participation in the design process offers potential to create high value person-product attachment. To research this hypothesis I use the concepts 'half-way product' and participatory design workshops. The resulting research question elaborates whether it is possible to create a stronger person-product attachment to a garment through the use of half-way products and participatory design processes. And can this participation in the design process change the behaviour and attitude of the consumer/user?

PART II



BACKGROUND THEORY TO FRAME THE CONTEXT

PART II provides a wide exploration of the theoretical framework, which has a major influence on the subsequent [PART III](#) - case studies. Based on the theory covering the problem of overconsumption and consumer behaviour, I investigate the main drivers and motivating factors for consumer action. The defined problems of fashion overconsumption and user dissatisfaction play a key role.

The theory on consumer motivation, needs and satisfaction led me to the conclusion that a valued and meaningful person-product relationship is likely to enable a prolonged product life-span and slow down the consumption of new objects. For this reason chapters 6) and 7) open up a discussion of the design tools and circumstances necessary to endow products with value and meaning. One of the most effective means of creating a strong bond between the consumer and the product – in addition to information – is to be shown participation and consumer involvement in the design process. Therefore in chapter 8) I discuss diverse strategies and applications which foster person-product attachment, especially in the area of fashion activism. The conclusions drawn from this theoretical framework form the basis for the case study research in [PART III](#).

02

(OVER)CONSUMPTION IN
FASHION AND CLOTHING

THE SUSTAINABILITY CRISIS IS ENCOURAGED BY A CONSTANT INCREASE IN CONSUMPTION, WHICH IS DISCUSSED IN THIS CHAPTER. THE INTERRELATION OF OVERCONSUMPTION, PLANNED OBSOLESCENCE AND FAST-CHANGING FASHION CYCLES IS DESCRIBED.

2.1

CONSUMPTION/ CONSUMERISM

Overconsumption is one of the major threats facing the future of our planet. Society today is overwhelmed by the constantly increasing production of new goods, which are supposed to fulfil our life, although they rather decrease the quality of life by creating an addiction (Max-Neef, 1991). In order to pave the way towards a self-sustained society without exploiting the resources of future generations, our capitalist system must shift away from its dependency on excessive production and consumption.

When tracing back the word 'consumer', we find that it comes from *consumere*, which means to use up, eat or to waste (Chapman, 2009, 35). The birth of the words consumerism or consumption goes in line with the industrial revolution and the emerging capitalist system (Chapman, 2009, 35). At the end of the 18th century, the first industrialized products were textiles (Kaiser, 2008). With the invention of the sewing machine in the mid-19th century clothes could be mass-produced and therefore became affordable and consumable for everyone (ibid.).

Williams (1980) states that market demand is based on the industrial production system we have created.

CONSUMERS ACT ACCORDING TO
THAT SYSTEM OF FAST AND CHEAP
PRODUCTION AND DISPOSAL.

Advertising and the media create an artificial desire, which makes consumers buy more things than they need. This results in a disconnection between the production process and consumption. (Williams, 1980)

Consumers often do not fully comprehend the extensive production process. They have no concept of the time, skills and materials required to produce those easily accessible items. Products no longer only fulfil a need, they are material representations of the dream of social acceptance and pleasure (Williams, 1980).

Fletcher & Grose (2012) discuss the idea that clothing, and especially fashion items, are a means of representing ourselves to society. The way we dress can express personal and political statements, show a sense of belonging, and give us self-confidence in our daily routines. (Fletcher & Grose, 2012)

However, the material goods to which we assign this meaning change according to fashion and our perceptions. This labile meaning is reflected in the statistics covering the yearly consumption of goods (Chapman, 2009).

IN THE UK, FOR EXAMPLE, ABOUT
HALF THE PRODUCTS CONSUMED
PER ANNUM ARE CLOTHES, THIS
IS IN TOTAL AROUND ONE MILLION
TONNES (ALLWOOD ET. AL, 2006).

Chapman and Gant (2007, 7) call for new ways of designing and the creation of "consumption models of long-term sustainability". User-involvement could facilitate a deeper understanding of the production process and its impacts (figure 01).

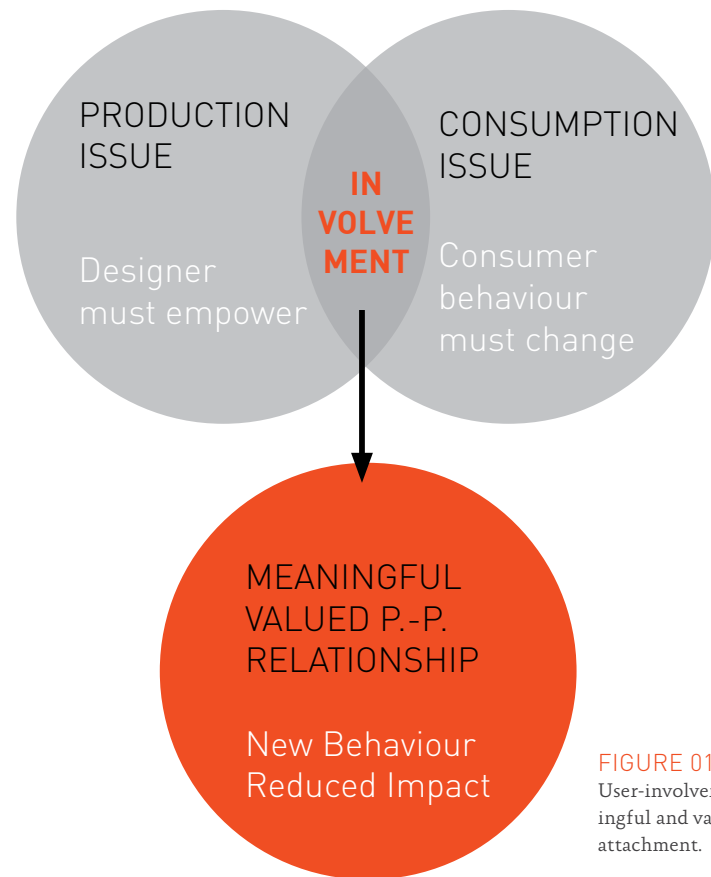


FIGURE 01:
User-involvement to create meaningful and valued person-product attachment.

2.2 /

WASTEFUL FASHION CONSUMPTION

The fashion industry is an important part of the current economic system. The United Nations Environmental Program stated that the fashion sector, which comprises the creation and production of garments and textiles, represents the world's second largest trade sector. It was valued at \$1.44 trillion in 2010. (Boone, 2010) On average, two thirds of the clothes produced are consumed in Western Europe and the United States. For instance, in the UK this is around 35kg of clothes and textiles, which is approximately equal

to £780 (~ \$1235) per person per year. (Allwood et. al, 2006) These sales are possible because the industry convinces the consumer to purchase new items every season.

CONSUMERS' PURCHASING BEHAVIOUR IS INFLUENCED BY AN ARTIFICIAL SHORTENING OF A PRODUCT'S LIFECYCLE, A PROCESS WHICH IS REFERRED TO AS 'PLANNED OBSOLESCENCE' (BURNS, 2010).

Burns (2010) discusses the issue of product design focusing on short-term satisfaction, which leads to the disposal of perfectly functioning goods due to a loss of emotional attachment. Fast fashion suffers primarily from 'aesthetic' and 'social obsolescence' (ibid.).

FLETCHER & GROSE (2012) CLAIM THAT THE INDUSTRY EMPHASISES LOW PRICES PER ITEM, WHICH RESULTS IN POOR PRODUCT QUALITY.

These garments often lose shape or colour during the first wash. As expected, tonnes of landfill waste are created every year (Fletcher and Grose, 2012). Allwood et.al (2006) state that about 2.35 million tonnes of textile and clothing waste are generated in the UK every year, this means around 30kg per person per year. That equals 0.7% of the total waste generated in the UK. Around 74% of textile waste goes to landfills (Gwilt & Rissanen, 2011; Allwood et. al, 2006). As a comparison, in Finland the textile



Images Clean Clothes Campaign

waste per person is lower, although there are no official statistics as textiles are part of the 'mixed waste' sector (Tojo et. al, 2012). The statistics of 'Norden' allow an estimation of 75,000 tonnes (14 kg/inhabitant) per year in 2010. Only 2.8% of this waste is recycled through donations or second hand stores. The majority ends up in a landfill, and about 24.6% is used for energy recovery through incineration. (Tojo et. al, 2012)

However, waste is not the only sustainability threat. The problematic process of industrial cotton production and the degrading working conditions in many clothing-manufacturing companies are even more shocking. As an example, the intense use of hazardous pesticides in cotton cultivation poisons the soil and the workers and the cultivation process also causes desertification due to very high water consumption (Fletcher, 2008). The Clean Clothes Campaign (2002) published data on the working conditions and salary of workers in low-wage countries such as China and Bangladesh. In the peak season they work 13 to 14 hours a day, seven days a week. The average percentage workers earn from the garments they sew amounts to around 0.5% to 4% of the low price at which we purchase clothing in the stores. Kate Fletcher summarizes this very well:

"FAST ISN'T FREE – SOMEONE SOMEWHERE IS PAYING". (ETHICAL FASHION FORUM, 2006-2009)



Images Clean Clothes Campaign



The industry emphasises low prices per item, which results in poor product quality.

(Fletcher & Grose, 2012)

03

CONSUMER BEHAVIOUR

THE FOLLOWING CHAPTER TAKES A DEEPER LOOK INTO LITERATURE ON CONSUMER MOTIVATION, CONSUMPTION DRIVERS, GENERAL BEHAVIOUR THEORIES AND HUMAN NEEDS WHICH DRIVE THE CRAVING FOR GOODS. THIS REVIEW SHOULD ENABLE A BETTER UNDERSTANDING OF THE CONSUMER AND HER/HIS ACTIONS.

3.1

CONSUMER MOTIVATION
AND BEHAVIOUR

In order to interpret consumption behaviour, it is necessary to study the main drivers and motivation behind it. There are several theories on consumer behaviour, attitude and desire and on spending and saving habits. However it is beyond the scope of this thesis to review those in depth. For example Jackson (2005) summarizes several theories and models in his publication: 'Motivating Sustainable Consumption'. Among them is 'The Theory of Reasoned Action' by Ajzen and Fishbein and the extended 'Theory of Planned Behaviour' by Ajzen. The 'attitude-behaviour gap' is also to be considered (Niinimäki, 2011).

THIS IMPLIES THAT EVEN IF CONSUMERS ARE AWARE OF ETHICAL AND ORGANIC PRODUCTS, THIS DOES NOT ALWAYS RESULT IN ETHICALLY-DRIVEN CONSUMPTION BEHAVIOUR.

Certain groups of consumers are not willing to change their behaviour if this involves inconvenience or higher prices (Carrigan & Attala, 2001). Consumers are highly diverse, therefore their motivation is also steered by different factors. Chapman states that "Material consumption is driven by complex motivations and is about far more than just the acquisition of newer, shinier things. It is an endless personal journey toward the ideal or desired self..." (Chapman, 2005, 30).

Design for durable products with lasting functional and emotional value requires a deeper understanding of the reasons why consumers have this constant desire to consume more. Chapman

(2005) states that this desire has its origin in the meaning that consumers assign to a specific product.

THE ACT OF CONSUMING IS OFTEN MOTIVATED BY THE WISH TO EXPRESS ONE'S VALUES AND BELIEFS TOWARDS THE CHANGING SOCIETY (CHAPMAN, 2005).

The problem is this constant change and restlessness of our society, expressed for example in fast-changing fashion trends.

Through consumption, people try to compensate for a lack of some kind. Our mind is driven by the urge to satisfy this emptiness by filling it with an object which best suits our aspirations. This can be based on functionality or, in the case of fashion, have a 'placebo value' (Barthes cited by Chapman, 2005).

FASHION THEREFORE REPRESENTS A WEARABLE MEANING AND LIFESTYLE.

Through the act of purchasing, consumers wish to acquire this meaning. Fromm (1997) translates human motivation into two modes of 'having' and 'being'. He describes 'having' as the striving to incorporate the product's meaning. Possession of an object transfers the object's meaning to its owner. By purchasing a product, consumers want to possess it, to incorporate what it represents to them. (Fromm, 1997)

3.2

NEEDS AND SATISFACTION

Needs are motivators for action to acquire something. Humans have specific needs, which are independent of nationality, religion or culture. “Needs cannot be programmed by society or modified by the will of the conscious mind. (Ekins & Max-Neef, 1992, 182)”

Maslow (1943) categorized all human needs in a pyramid of five levels known as Maslow’s hierarchy of needs. He divided the lower levels into physical, safety and security needs and the higher levels into social, ego and self-actualization needs (Maslow, 1943). In the western world, where most of the physical and safety needs are provided for, consumption is mainly driven by ego, social or self-actualization need.

In comparison, Max-Neef (1991) identifies existential and axiological needs. The existential needs are: being, having, doing and interacting. The nine axiological needs are: subsistence, protection, affection, understanding, participation, idleness, creation, identity and freedom. Those in turn can be divided into material (physical) and nonmaterial (psychological) needs (ibid.).

Max-Neef (1991, 17) explains the possibilities of satisfying different existential and axiological needs with corresponding satisfiers, even though he states that there is never a “one-to-one correspondence”. The satisfiers are clustered into five sections, namely: violators or destroyers, pseudo-satisfiers, inhibiting satisfiers, singular satisfiers and synergic satisfiers which in the best case satisfy several needs at the same time (Max-Neef 1991). Max-Neef (1991) uses a matrix to show the relationship between different types of need and the respective conditions necessary to satisfy them. For example the need for ‘participation’ can be satisfied with different attributes (being) like adaptability, receptiveness, solidarity, willingness and

passion. The suitable institutions (having) need to provide rights and privileges. Max-Neef uses the aspect of ‘having’ and ‘being’ in a wider context than Fromm. The need for participation can also be satisfied with action (doing) of cooperation, sharing and expressing opinions. The place, setting, community (interacting) must allow a setting of participative interaction, as is given for example in a co-sewing workspace.

Kate Fletcher suggests that Max-Neef’s taxonomy of human needs can form a basis when designing for value and social sustainability. Designers can use it as a powerful tool to analyse and identify potential ideas, strengths and weaknesses with a view to socially responsible design. (Fletcher & Grose, 2012, 132-134)

DESIRES ARE DIFFERENT FROM
HUMAN NEEDS AS THEY CAN BE
MODIFIED

“...because they are products of the interaction of conscious mind with subconscious behavioural programs” (Ekins & Max-Neef, 1992, 182).

If someone aspires to belong to a certain societal group, s/he has the motivation to acquire things that represent this wish to the outside world. We are seeking to be approved by others. Festinger claims that people seek to evaluate and compare themselves to others (Festinger in Goldstein et. al, 2008). In comparison, someone may wish to be different and individual and therefore is looking to project this by, for example, wearing clothes that differentiate her/him from others to visually demonstrate individuality (Fletcher & Grose, 2012).

“EARTH PROVIDES
ENOUGH TO SATISFY
EVERY MAN'S NEED,
BUT NOT EVERY MAN'S
GREED.”

(Mahatma Gandhi)



**About 2.35 million tonnes of
textile and clothing waste
are generated in the UK
every year.**

Allwood et. al

04

OPPORTUNITIES FOR A CHANGE IN CONSUMER BEHAVIOUR

THE FOLLOWING CHAPTER COVERS THE POSSIBILITIES OF CHANGING CONSUMER BEHAVIOUR BY USING SUSTAINABLE DESIGN METHODS. THEORY ON SUSTAINABILITY, ITS DEFINITION AND POSSIBLE STRATEGIES SUCH AS ETHICAL AND SLOW CONSUMPTION ARE DISCUSSED. THE CHAPTER CONCLUDES WITH A SECTION ON THE SATISFACTION OF NEEDS WITH FASHION AND CLOTHING AND HOW NEW FORMS OF ENJOYING GOODS CAN SPREAD GREATER SATISFACTION, HAPPINESS AND WELL-BEING AMONG CONSUMERS.

4.1

SUSTAINABILITY & DESIGN FOR BEHAVIOURAL CHANGE

The ability to sustain, or being able to sustain, represents the general idea of how an object or system is able to continue its functionality over a longer period of time. If looking for a definition, the word has its origin in the Latin: *sustinere* (tenere, to hold; sus, up). The free dictionary defines sustainability as “capable of being sustained”. Sustainability describes the way we use resources and return them to their original state.

Sustainable development is defined in the Brundtland Report:

“SUSTAINABLE DEVELOPMENT IS DEVELOPMENT THAT MEETS THE NEEDS OF THE PRESENT WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS” (WCED, 1987, 43).

Sustainable development is a highly political aspect as it involves the sustaining of the human species by fulfilling their needs, which are not only of material nature.

Elkington (2004) described the achievement of sustainable development as only being possible in a system of ecological, social and economic balance. He coined the well-known expression triple bottom line for sustainability, later also known as the 3P – People, Planet, Profit (Elkington, 2004).

Manzini (2007, 89) points out that “transition towards sustainability requires radical changes in the way we produce and consume and, in general, in the way we live”. Designers have a special role as they are located between production, producer and consumer. This means that designers can use their skills and position to influence consumers’ behaviour and production systems. Slower production and consumption cycles, more local production and a more valued product-person relationship need to be encouraged (Niinimäki & Koskinen, 2011). Designers can promote a change in production systems by the way things are designed (Braungart & McDonough, 2009). The replacement behaviour of consumers can also be influenced by product design (van Nes, 2010).

For example, Gibson (1977) defined the relationship between object and action as affordances - “object possibilities for action (affordances)” (Learning Theories Knowledgebase, 2012). ‘Affordances’ are the way consumers perceive a product and the resulting actions. This results in the assumption that ‘affordances’ offer the potential to act as behaviour guide.

PARK (2010) STATES THAT GUIDING BEHAVIOUR WITH PRODUCTS REQUIRES A COLLABORATIVE FOUNDATION OF DESIGNER AND USER. THE ROLE OF THE USER CHANGES TO BE “MORE INVOLVED IN THE DESIGN OF PRODUCTS (AND SERVICES) AND THESE WOULD BE ADAPTABLE TO MEET THEIR PARTICULAR CIRCUMSTANCES. SUCH AN ‘ADAPTIVE PRODUCT’ APPROACH WILL REQUIRE DESIGNERS TO CREATE PRODUCTS THAT ARE INTENTIONALLY ‘UNFINISHED’ OR ‘OPEN’.” (PARK, 2010, 99).

Chapman and Gant (2007) present different opportunities for designers to become agents for a sustainable change. Sustainable design includes a variety of strategies, such as: products which allow disassembly and repair, focusing on the use of sustainable materials, reducing energy consumption throughout the phases of production and use, the design of longer-lasting products through better quality and emotional attachment etc. (Chapman & Gant, 2007). Fuad-Luke (2010) discusses strategies which extend product durability by making products in such a way that they are repairable, reusable and re-makeable as well as ‘socialization’ by sharing products.

THE OPPORTUNITY TO CREATE PERSONAL NARRATIVES WITHIN THE OBJECTS IS LIKELY TO STRENGTHEN THE ATTACHMENT AND PROVIDE NEW SOLUTIONS FOR REDUCED CONSUMPTION (FUAD-LUKE, 2010, PP.133-154).

Design which fosters social and environmental benefits also hands over the responsibility to the consumer. By empowering them with knowledge, skills, ideas and awareness they can support sustainable consumption patterns. The way needs are satisfied must be redesigned through a change in society and the distinct habits of individuals.

Manzini (2006) discusses the opportunity of enabling and activating consumers to become part of the production cycle. He encourages the idea of enabling people with new skills to build a relationship with the products they own (Manzini, 2006). Designers can enable the consumer with skills; this allows them to break out of being a passive recipient of what is offered in the stores (von Busch, 2007). Design can encourage this behaviour by implementing knowledge about product perception and the satisfaction of needs during the design process (Cooper, 2000).

4.2

ETHICAL, SLOW AND SUSTAINABLE CONSUMPTION

Ethics and values are two terms which are intertwined. To the majority of people, behaving in an ethical way means acting and living in a way that is good for themselves and for others. Fox (2006) states that ethics concerns the values we should live by. What are these values? In a general sense, values represent the rules and obligations we are taught to respect (Fox 2006, 294).

Harrison, Shaw & Newholm (2005) discuss how, with the choice of a product, consumers vote, support a certain cause or make a statement. In this respect, ethical consumption is driven by consumers’ values and often a certain sense of integrity towards socially or environmentally aware behaviour.

MORAL VALUES AS WELL AS PRODUCT KNOWLEDGE AND PERCEPTION OF THE CONSUMER ARE REFLECTED IN CONSUMPTION BEHAVIOUR. (HARRISON, SHAW & NEWHOLM, 2005)

The ‘slow movement’ is an example of how values and ethics are reflected in purchasing and living standards. It takes its inspiration from the Italian ‘Slow Food Movement’ which was founded by Carlo Petrini in 1986. In opposition to the emerging fast food trend, the ‘Slow Food Movement’ criticizes the ever-faster way of living and consuming, and the resulting reduction of qualitative, unique and slower-produced goods. (Slowfood, n.d.)

Over the years, the idea of ‘slowness’ in production and consumption cycles has been integrated into various fields. The slow approach encourages new models of production and consumption. The focus is on local, qualitative and transparent production processes, with special attention to sustainability in longer-lasting and qualitative products with a higher emotional value to the consumer (Slow + Design Manifesto, 2006).

The resulting slower consumption cycles foster the goal of a more sustainable consumption [1].

1] Sustainable consumption has been defined according to the Brundtland Definition of Sustainable development: “the use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life-cycle, as not to jeopardise the needs of future generations” (Norwegian Ministry of Environment, 1994 cited by OECD 2002, 2).

4.3

SATISFACTION OF NEEDS WITH FASHION AND CLOTHING

Fashion and Clothing are two concepts which are often used interchangeably. However, there is a major difference between these concepts as regards the satisfaction of different human needs.

Fashion is an important contemporary and cultural medium of our time. It has the power to express an individual or a group living in that moment. Fashion as defined in the dictionary: “the prevailing style or custom, as in dress or behaviour, prevailing or preferred manner of dress, adornment, behaviour, or way of life at a given time” (the free dictionary, n.d.). Kaiser (1990, 4) cites Sproles (1979, 5) on defining fashion as “a dynamic social process by which new styles are created, introduced to a consuming public, and popularly accepted by that public”. Clothing in comparison is defined by Kaiser (1990, 4) as a tangible or material object which is in contact to the human body, like pants, skirts and other “body coverings”.

Fashion activist Otto von Busch (2008) writes in his doctoral dissertation that fashion is like a virus which is spread partly through the media, but mostly through human interaction. It expands unintentionally and seems to have a life of its own (ibid.). It only grows to be a problem if consumers follow those trends blindly. Why does fashion have such power over our behaviour?

For a possible answer, the consumer’s need for fashion and clothing has to be differentiated. Fashion symbolizes an object’s meaning in relation to cultural and societal presence (Kaiser, 1990).

Susan Kaiser (1990) describes fashion’s role as of symbolic meaning versus clothing which is material production to fulfil physical needs.

Fashion in the social context becomes a visual tool to communicate our status and our individual style at a current moment in time. “Fashion at its creative best is one of the most powerful and direct expressions of personal aspiration, individuality and belonging” (Fletcher & Grose 2012, 138).

Clothing, by comparison, satisfies first the physical need to give us warmth and protection against the elements, for example in outdoors working clothes. Thus, not all clothes are equally fashion, and fashion is not only expressed in garment shape. Fletcher (2007) is discussing that when clothes become fashion, they do not only satisfy our physical needs, but also our emotional needs - they become synergetic satisfiers.

**FASHION AND CLOTHING CAN BE
A GREAT VEHICLE TO TRANSPORT
SUSTAINABILITY INTO EVERYONE’S
LIVE (FLETCHER, 2007).**

Fashion and clothing offers diverse opportunities to act sustainable everyday. Thoughtful purchase, use and wear, offers a variety of possibilities to start sustainable lifestyle habits.

4.4

SUSTAINABLE WELL-BEING FOR REDUCED CONSUMPTION

Well-being signifies the emotional, physical and psychological feeling of satisfaction and happiness. Well-being can develop through a complex combination of diverse social, cultural and emotional factors in a person’s life. Vezzoli and Manzin (2008, 24) describe sustainable well-being as context based well-being, which refers to the whole human life environment, including physical and social opportunities as well as the “possibility to act in this context”.

They propose a change in societies expectations of well-being to be less dependent on the acquisition of new goods, and direct the focus on the recognition of a positive social and physical living-environment (Vezzoli & Manzini, 2008, 24). Design can be a beneficial tool to create well-being by enabling new ways of consumer product satisfaction and person-product attachment. For this reason, alternative ways to satisfy human needs and desires, not necessarily with a product, are required. Sustainable solutions encourage the “debate about ‘reflective consumption’ (Fuad-Luke, 2007, 25)”. Designing for reflective consumption bears in mind the emotional, physical and psychological factors of human well-being, whilst also taking into account social, economical and environmental factors (Fuad-Luke, 2007).

**MANZINI (2006) DEFINES THIS AS
A SYSTEM SHIFT FROM PRODUCT-
BASED WELL-BEING TOWARDS
ENABLING SOLUTIONS TO SATISFY
HUMAN NEEDS.**

He discusses the opportunity of enabling and activating consumers to become part of the production cycle. The main idea entails gaining well-being by consuming less. People have to be enabled with skills to get deeper and actively involved and thus form a deeper emotional bond with the products they own (Manzini, 2006). Therefore the following chapters explore enabling solutions and design opportunities to create meaningful person-product attachments.

“THE WORLD WILL NOT EVOLVE PAST ITS CURRENT STATE OF CRISIS BY USING THE SAME THINKING THAT CREATED THE SITUATION.”

(Albert Einstein)

05

PERSON-PRODUCT ATTACHMENT FOR SUSTAINABLE PRODUCTS

THE EMOTIONAL VALUE AND MEANING CONNECTED TO A PRODUCT IS THE KEY TO CREATING A STRONG AND SUSTAINABLE PERSON-PRODUCT ATTACHMENT. THE CHALLENGES AND POSSIBLE WAYS IN WHICH DESIGN CAN BENEFIT THE CREATION OF VALUE AND MEANINGFULNESS OVER TIME ARE DISCUSSED IN THIS CHAPTER.

5.1

PRODUCT LONGEVITY AND PERSON-PRODUCT ATTACHMENT

Producers and designers have to focus on a real understanding of consumers' needs and wants in order to satisfy them sustainably. The longevity of a product does not only depend on its quality and functionality over time, it also relies on the person's growing empathy towards a product (Chapman, 2005). Design which enables valued and meaningful person-product attachment offers a great opportunity. Higher-valued products are more likely to be treated with care, and thus last longer (Chapman, 2005).

According to Schifferstein and Zwartkruis-Pelgrim, consumer-product attachment represents the "strength of the emotional bond a consumer experiences with a durable product" (Schifferstein & Zwartkruis-Pelgrim, 2008, 1).

AN ENHANCED PERSON-PRODUCT ATTACHMENT IS A DRIVER TOWARDS BEHAVIOUR CHANGE BY CHANGED HABIT AND ATTITUDE (COOPER, 2005).

The bonding creates a special meaning which the owner experiences towards this specific product (Schifferstein & Zwartkruis-Pelgrim, 2008). There are a variety of dimensions implied. Schifferstein and Zwartkruis-Pelgrim (2008) define them as the following: enjoyment, memories of persons, places, and events, support of self-identity, life vision, utility, reliability, and market value. They declare that only positive experience and memories support the attachment positively. (Schifferstein & Zwartkruis-Pelgrim, 2008) If a product is able to gain a special meaning, this distinguishes it from

others and thus makes it more valued by the owner (Niinimäki, 2011). Therefore, s/he feels a real emotional loss if the product is lost or damaged. For this reason, fast product replacement is very unlikely (Schifferstein & Zwartkruis-Pelgrim, 2008).

Schifferstein and Zwartkruis-Pelgrim (2008) state that emotional product attachment can be related to a variety of reasons and meanings, such as a product's history – something experienced in the past, as well as the present and future dimensions. Design can seek to create products that offer a space to capture present or future experiences, memories and emotions over time. This means that personal and emotional value, as well as symbolic meaning, can upgrade during the passing of time (Schifferstein & Zwartkruis-Pelgrim, 2008). Emotionally durable products have to generate a unique feeling of individuality and self-identity (Chapman, 2005).

MARCHAND AND WALKER (2008) STATE THAT CONSUMERS PREFER QUALITATIVE PRODUCTS WHICH ALLOW INTERACTION AND WHICH REQUIRE ACTIVE 'DOING' FROM THEIR SIDE.

This enables them to understand and repair the products. Niinimäki (2011) points out that the major reason for product dissatisfaction with garments is due to poor quality. Sustainable consumption can therefore be enhanced by focusing on better value in the use phase and a meaningful person-product bonding (Cooper, 2005).

5.2

VALUE AND MEANING FOR BETTER PERSON-PRODUCT ATTACHMENT

Due to a loss of emotional or personal meaning, products get discarded easily. Design, which strengthens this person-product relationship, has to consider and aspire to emotional meaning and value in order to create products that sustain.

'Value' is an expression which is difficult to define, as it represents a complex interplay of different applications, according to the context. "Values are self-organizing principles that guide our thoughts and actions. Culture Values provides many values for us, which we are socialized to accept; yet values per se are ascribed to individuals" (Kaiser, 1990, 289). Values help us to define what is important to us, and create preferences (ibid.). The value we are able to develop towards an item is a result of our prior education and relationship towards things (Elkington, 2004). Our values are the result of "the most powerful programming" we have undergone (ibid., 4). Social, cultural and educational influences shape our values over time (ibid.). The expression 'value' is very multifaceted, therefore I am not able to provide an in-depth definition. In the thesis context, I use the expression 'value' in relation to personal and emotional values as well as ethics. I frame the context towards generating value for products and the relationship between a person and a product. Personal and emotional values are influential during the purchasing act as well as in the use phase. Within this chapter I review the possibilities of using design processes to create value towards objects, especially clothing.

It is very difficult to fully understand the variety of drivers for human consumption behaviour. Besides needs, wants and desires, personal values play a key role. In a society with very low feeling for value, it is hard to encourage users to care deeply for their objects.

IF A PRODUCT GAINS A SPECIAL MEANING, VALUE CAN BE CREATED AND ITS LIFETIME WILL BE EXTENDED (NIINIMÄKI, 2011).

Chapman (2009) argues that, currently, the majority of objects are not able to create a sustaining emotional bond with their owners. For a sustainable product design, objects have to stimulate an emotional awakening through positive experience (Chapman, 2009). Cupchik states that the cognitive meaning of an object forms the base on which awakening and emotional bonding can be created (Cupchik cited by Chapman 2009, 97). Cupchik claims that emotional processes start with a first "initial impression" of the product, then the product will be experienced through the use phase, which can build a variety of "degrees of emotional attachment to it" (Cupchik cited by Chapman 2009, 97). In comparison, Norman (2004) declares that emotions and cognition are closely connected, as most of our behaviour is subconsciously lead by emotions. Norman (2004, 5) states that design, and the interaction with a designed object, can be divided into three types: visceral (appearance), behavioural (pleasure during use) and reflective (emotions, satisfaction, memories, self-image). However, Chapman (2009, 99) also points out that "an adequate explanation of human emotion has yet to reveal itself." Chapman (2009, pp. 83-109) states that objects need to be able to create a story together with their owners over time. The more the user can engage with the product, the tighter the emotional bonding through experience can become. A base of trust and intimacy between object and owner can be developed. (Chapman, 2009, pp. 83-109)

5.3

DESIGN FOR A MEANINGFUL PERSON-PRODUCT RELATIONSHIP

AN EVOLVING PERSON-PRODUCT ATTACHMENT HAS TO BE CONSIDERED WITHIN EACH DESIGN PROCESS. CHAPMAN (2009) MAKES IT CLEAR THAT, FOR SUSTAINING PRODUCTS, EMOTIONAL MEANING AND SATISFACTION HAVE TO BE ENSURED OVER A LONGER PERIOD OF TIME.

Designers need to gain more knowledge regarding the emotional needs of the end user to better understand this changing need for new products (Chapman, 2009). Niinimäki (2011) points out that design for person-product attachment requires a deeper understanding of the diverse and personal reasons for consumers' purchases, use and product satisfaction as well as disposal behaviour. On top of that, the general position of consumption and product meaning in society are essential to an understanding of consumer behaviour (Niinimäki, 2011).

Design and research which emphasise value and meaningful relationships have to focus on the diverse behaviour, use and satisfaction aspects before starting the design process (Niinimäki, 2011). The question resulting is how can this value be increased over a longer period of time?

Niinimäki and Hassi (2010) discuss the possibility of creating product attachment through different aspects of the product, for example through design; style; quality; the material and functionality of a product. Fletcher and Grose (2012) also point out the importance of the right material choice. Aesthetics play a key role in fashion, therefore products need to age in beauty. Leather, for instance, can visually embody a product's lifetime and the owners' experiences, but still satisfy visual preferences. In comparison, products that live from their newness and superficial visual perfection are very vulnerable and easy to be disregarded. They become waste due to aesthetic obsolescence. (Fletcher & Grose, 2012) Designers should avoid discrediting the value of their products through an overly fashionable appearance which will easily become outdated.

Personal values (uniqueness, tailor-made, self-made or self-designed) and/or emotional values (memories, family ties, positive associations) are beneficial to stronger person-product attachment (Niinimäki & Hassi, 2010). Present and future experiences are also key enablers to strengthen this attachment (ibid). Niinimäki (2011) suggests that value can be created through external means, such as social, cultural, local and global systems. Value can develop, for example, through the symbolic meaning of a product and how it will be evaluated in the social environment (Niinimäki, 2011, 47).

5.4

PERSONAL AND UNIQUE STYLE

Chapman (2009) suggests that intelligent products should encourage the user to become a main actor of the functionality.

PEOPLE ENJOY PRODUCTS WHICH OFFER THEM A RICH EXPERIENCE, REGARDING THEIR PERSONAL VALUES, AND PRODUCTS WHICH REACT TOWARDS THEIR ENVIRONMENT AS IF THEY WOULD INHERIT A SENSE OF CONSCIENCE.


He argues that the user should be invited to actively experience the product, and therefore be able to create meaning and value towards it. An individual story is created through the active participation and interaction with the product and thus creates a personal meaning. (Chapman, 2009, pp. 137-162) User-involvement within the design process is assumed to enable value creation through personal meaning and experience. This positive experience can nourish positive emotions towards the product, and thus foster a better person-product attachment.

For products to be loved over time, they need to have their own character, which can represent the owner's personality and self-image. "If the designer can link the new product deeply with a consumer's emotions, identity, aesthetic needs (that is, values and lifestyle) and personal memories, the design process can achieve a deep product satisfaction and product attachment" (Niinimäki, 2009, 180).

Govers and Schoorman (2005) presented findings which indicated that people favour products with which they can identify and mirror their self-image. Products are tangible meaning that we want to inherit. Therefore personalized and unique products are more appreciated by the majority of users, as they make them feel different and special in comparison to the mass (Fletcher & Grose, 2012).

For example, handmade products or product customization can create emotional meaning (Fletcher & Grose, 2012). Mugge (2007) examines how products can fulfil the need for self-expression and thus encourage a positive and stronger attachment to the product. If users personalize an item with their own effort, this product is likely to have a longer lifetime. Unique products are a strong tool to emphasise sustainable consumption models. (Mugge, 2007)

Personalized and handmade products gain a special value, as they symbolize a strong human-human relationship (Schifferstein & Zwartkruis-Pelgrim, 2008). If one receives a handmade item, this shows that the product user is cared for (ibid.). These handmade goods gain special status through their uniqueness and individual purpose. Individualized items can inherit their own story, versus an already given one. This story makes the product more personal, and thus more valuable.



Personalized and handmade products gain a special value, as they symbolize a strong human-human relationship.

Schifferstein & Zwartkruis-Pelgrim

06

DESIGN TO EN{ABLE}

THIS CHAPTER EXPLORES HOW DESIGNERS CAN HELP PEOPLE TO GAIN RELEVANT KNOWLEDGE AND SKILLS. THE DESIGNER'S ROLE SHIFTS TOWARDS ENABLING THE CONSUMER TO BECOME ACTIVE PARTICIPANTS IN NEW SUSTAINABLE DESIGN ALTERNATIVES.

6.1

DESIGNER AS FACILITATOR

The role of the designer will have to change if we want to encourage a more sustainable consumption behaviour of the individual. Sustainability needs to be approached across disciplinary borders. With design thinking, a new understanding from different angles can be created (Fletcher & Grose, 2012, pp. 143-158). Traditional design, including sketching, prototyping and visualizing, will still exist though the focus shifts towards shared activities and platforms which can foster a change in current structures and behaviour (Fletcher & Grose, 2012, pp. 143-158).

The designer is in a good position to encourage a change between interrelated stakeholders. Collaborative processes have to be facilitated through new design methods. At the beginning, the process should be more important than a standardized product design outcome. Emphasis is placed on positive group dynamics and a successful collaboration between the different stakeholders rather than on the individual designer's success. (Fletcher & Grose, 2012, pp.143-158)

These new design strategies and methods are likely to be related to the umbrella term design activism.

ACTIVISM THROUGH DESIGN, AND NEWLY-EMERGING DESIGN STRATEGIES SUCH AS OPEN DESIGN, PARTICIPATORY DESIGN, CO-DESIGN, SLOW DESIGN, CRITICAL DESIGN AND OTHERS TRY TO REDEFINE DESIGNERS ROLE. THESE STRATEGIES FOCUS ON INFORMING, ACTIVATING AND ENABLING THE CONSUMER TO BECOME INTERESTED AND SKILLED IN ENGAGING WITH THEIR PRODUCTS (FUAD-LUKE, 2009a).

A selection of these strategies also aim to put the consumer in a closer position to their product. By creating a base of product understanding, skilled users are able to better maintain their objects and thus ensure them a longer lifespan. A sustainable ideal is the constant evolvment and personalisation of the product through repair, redesign and recycling. As stated in the previous chapters, this participation in the design process can foster valued person-product attachment, through personal and emotional value creation.

6.2

EN{ABLE} AND ACTIVATE THE CONSUMER

Currently the fashion industry leads the consumers into the role of a passive recipient of what is designed, manufactured and delivered to the stores. The products and services are designed to keep consumers in a passive and ignorant position (Vezzoli & Manzini, 2008, 26). Products are mass-produced, lack uniqueness and reduce the consumers' choice (Fletcher & Grose, 2012). Consumers tend to float along the proposed trends of magazines and stylists, and lose creativity and confidence in personalizing their clothes (ibid.).

Through innovative ideas, this bubble has to burst, and consumers need to become active participants. The individual's role is never just a consumer or a user, consumption always requires a certain degree of participation (Vezzoli & Manzini, 2008, 30). It depends on the case, how much time, energy, attention and skills are required (ibid.). Vezzoli and Manzini discuss opportunities to empower consumers and communities with design tools which initiate collaboration and involvement (Vezzoli & Manzini, 2008, 26). Enabling solutions allow consumer participation in the design process and respect the consumer's motivation, willingness and capability (ibid.). By enabling the user with more skills and a deeper product understanding, s/he gains the capability of making informed decision, more independent from what is offered by the industry. This results in a greater freedom of choice. Amartya Sen expresses this capability as a kind of freedom to have alternatives to choose from (Sen, 1999, 75). A freedom of choice is important

for a person's quality of life and her/his well-being.

The question is how to move from consumer/user models towards active and involved co-designers/ co-makers/ co-producers?

CONSUMERS NEED TO BE MOTIVATED TO CHANGE THEIR BEHAVIOUR WITHOUT FORFEITING PERSONAL WELL-BEING AND HAPPINESS. DESIGNERS ARE ASKED TO EXPLORE NEW AND JOYFUL METHODS TO ENABLE CONSUMERS TO BECOME AGENTS FOR SUSTAINABLE FASHION CONSUMPTION.

Fletcher and Grose (2012) propose that sustainability is based on action - representing active individuals, designers and consumers. Designers can foster this shift from passive recipient towards active and educated user with different enabling tools which fetch the consumer at their personal stage of motivation and knowledge (figure 02). I illustrate this preferred shift of the consumer in figure 02. The sustainable ideal is for aware and educated consumers who are able to make active and independent decisions. This is a challenging and political balancing act, as it will chip away at dominant trade models, including global manufacture, cheap labour, mass-production and non-transparent business strategies (Fletcher & Grose, 2012, pp. 143-158).

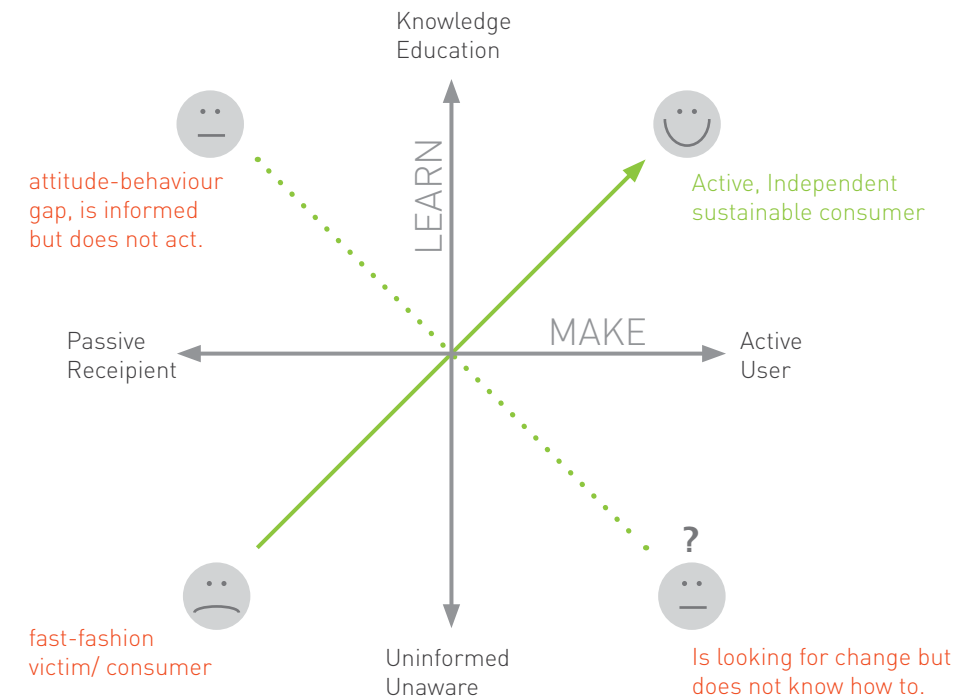


FIGURE 02

From passive recipient to active user/ co-designers/co-makers/co-producers.

Using fashion activism strategies, von Busch tries to activate the consumer to get involved in the clothes making process. He calls this an empowerment of the consumer, to break free of fashion industry dictatorship. With downloadable redesign instructions, he wants to turn around the roles and the consumption structures in the fashion industry (von Busch, 2008). Von Busch (2008) promotes the concept of 'readiness to make' versus 'ready-to-wear'. 'Ready-to-make' garments allow the consumer to become an active participant in the design process - in contrast to 'ready-to-wear' garments which lower the necessity to get involved. For changing and redesigning 'ready-to-

wear' clothing the user already requires a certain degree of knowledge and motivation, otherwise they stay passive recipients of the given object.

To encourage a broader audience, designers need to find key starters to activate the individual consumer. A combination of 'ready-to-make' and more sustainable 'ready-to-wear' approaches allow small steps of interaction and can offer the consumers interesting new ways to enjoy their garments. Time, skills, creativity and effort have to be invested to acquire those new - but unique - ways of wearing, using, making and enjoying clothes.

**Enabling solutions allow
consumer participation in the
design process and respect
the consumer's motivation,
willingness and capability.**

Vezzoli & Manzini



07

DESIGN ACTIVISM

THIS CHAPTER TAKES A LOOK AT NEW DESIGN MOVEMENTS, SUMMARIZED UNDER THE UMBRELLA TERM: 'DESIGN ACTIVISM'. DESIGN ACTIVISM ENCOURAGES DESIGNERS TO USE THEIR KNOWLEDGE AND SKILLS TO IMPROVE AND CHANGE A CURRENT SITUATION FOR THE SOCIAL AND/OR ENVIRONMENTAL BETTER.

A design activist is willing to delve into the unknown to support sustainable system and business strategies (Fuad-Luke, 2009a). Fuad-Luke defines design activism as “design thinking, imagination and practice applied knowingly or unknowingly to create a counter-narrative aimed at generating and balancing positive social, institutional, environmental and/or economic change” (Fuad-Luke, 2009a, 27). A design activist, further, is a “non-aligned social broker and catalyst; a facilitator; an author; a creator; a co-author; and a happenner (someone who makes things happen)” (Fuad-Luke, 2009a, under ‘Preface’ xxi). The expression design activism covers several other design movements: slow design, co-design, participatory design, metadesign, universal design, social design, critical design and several others (Fuad-Luke, 2009a).

For instance, in the context of clothing consumption, design activism can direct consumers’ attention to the production circumstances or the care phase of their garments. However, it can also imply interfering with the current system by encouraging consumers to become makers and producers of their own clothing. Fuad-Luke (2009a) discusses the idea of repositioning the consumer within a matrix of self-design vs. professional design, and mass manufactured vs. made by the user.

The design challenge is to find the trigger to raise awareness, activate and communicate with the user. To reach a critical mass the level of involvement needs to vary according to the consumers’ motivation (Hirscher, 2013). Consumers need to be able to choose how much they are willing and capable to do. It is easier to involve people with their products if they are already aware or have considered a change their lifestyle towards sustainability (Marchand & Walker, 2008).

7.1

DESIGN ACTIVISM WITH MEDIA AND COMMUNICATION

Consumer education and awareness are important drivers for a sustainable consumption behaviour (Allwood et.al, 2006) Consumers need to be informed, and be provided with reliable and comparable information to become active agents for change (Allwood et al., 2006, 5). Designers can take action by empowering the consumer with knowledge, skills, ideas and awareness towards the products they purchase.

7.1.1

CAMPAIGNS AND INFORMATION OVERLOAD

A variety of political and social activism campaigns have been instigated, for instance by 'Greenpeace' and 'Adbusters' and in the fashion sector for example by 'Labour behind the Label' and the 'Clean Clothes Campaign', to name but a few. They clearly indicate the negative effects of our consumption-driven society. For instance, the organisation 'Labour behind the Label' provides a list which grades shops in regard to the effort they put into ensuring living wages for the workers (Labour behind the Label, 2011). Greenpeace and the Clean Clothes Campaign focus not only on workers' wages but also on the health risks and toxicity of the garment production process (Greenpeace, Clean Clothes Campaign). Adbusters criticize and raise awareness towards advertisement and branding-driven consumer behaviour (Adbusters Media Foundation, 2013).

However, consumer reaction is rather low. Is there too much information to decide what is relevant? What makes us immune to this difficult-to-process data? Fletcher and Grose (2012, 138-139) discuss that environmental campaigning has successfully raised awareness about ecological issues among the majority of people. However the campaigns have failed to deeply change the behaviour (ibid.).

The challenge with all these initiatives, campaigns and the information provided by different brands is to find and evaluate their quality and importance as regards one's own values and ethics. There is an obvious overload by the different sources, for example sustainability reports by brands, evaluation reports by various NGOs and also standardized labels which should make organic and fair trade standards easy to identify. This large quantity of information of varying quality creates an obscure fuzziness. The consumer really has to take time and pay attention to the quality of the source. This is contradictory to an easy-to-apply sustainable lifestyle. As not everybody is willing to spend a lot of time on digging out information to compare the different product aspects, information has to be transparent and easily accessible.

7.1.2

INFORMATION GRAPHICS

Information graphics and easy-to-read visuals can simplify data and therefore also enable less educated or less interested people to quickly understand complex correlations. Fuad-Luke (2009a) discusses the important challenge of simplifying data and messages. "Finding new ways to communicate requires imaginative use of design to penetrate beyond the 'white noise' (many random signals of equal intensity) of contemporary life" (Fuad-Luke, 2009a, 88). There are various great examples, like the 'Virtual Water' poster by Timm Kerkeritz, or Annie Leonard, whose web-based video uses graphics to explain 'The Story of Stuff' (Fuad-Luke, 2009a). The challenge for the designer is to reach the target audience, due to the overload of media already in existence.

An older example of socially and politically influenced information graphics is the ISOTYPE - International System Of TYPographic Picture Education. In the late 1920s Otto Neurath created the ISOTYPE together with the German illustrator Gerd Arntz. Icons are used to visualize difficult quantitative data, and therefore make it understandable for the broader audience. Later attempts in this direction were undertaken by well-known information designer Edward Tufte and others. (Arntz & Annink, 2012; armina, 2008)

7.2

FASHION ACTIVISM AND ITS DIVERSE APPLICATIONS

The goal of fashion activism is to criticise the current fast-fashion system and work towards improving it (von Busch, 2008). It is an umbrella term for various politically, socially or environmentally driven activities related to the fashion industry, fashion consumption and fashion design (Fuad-Luke, 2009a).

When fashion designers become activists, they offer and use their skills for improving the industry towards more transparent and sustainable practices. Fashion activism is redefining a profession and its possibilities to support a sustainable system and democratise knowledge. (von Busch, 2008)

“Fashion activism ideologies envision a fair balance between economic, social and environmental responsibilities” (Hirscher, 2013). Possible fashion activism approaches are for example: open design, fashion-hacking, co-design, slow fashion, modular clothing, craftivism, do-it-yourself clothes, consumer education, participatory fashion workshops and half-way products.

7.2.1

CONSUMER EDUCATION AND COMMUNICATION

Fashion design can educate and provoke a discussion on habits of wear and care, through the way clothes are designed (Gwilt & Rissanen, 2011). Consumer behaviour can be influenced through the way garments are made. Beyond that, clothes can work as a communication tool to express personal concerns. For example as seen by Jenny Holzer, (www.jennyholzer.com) who works primarily with large-scale displays but also with T-shirts with the slogan: ‘Protect me from what I want’.

More information on care labels can help to educate and change consumer behaviour in the use phase. The “Green Label” uses the visuals of standard care labels, but adds instructions on sustainable clothing care practices such as laundering at low temperature and reusing, recycling and repairing the garments if necessary. (Gwilt & Rissanen, 2011, 108-109)

Communicated transparency of fashion brands can create deeper understanding, trust and value towards garments and manufacturers. The NGO consultancy ‘Made by’ focuses on consumer education and also guides companies towards sustainable and transparent practices. Through labels and an ID-number attached to the garment, the pieces can be tracked and traced back to the origin of the fibre. (Made by, 2013) Using a variety of tools, Made-By wants to ease participation for businesses towards more transparent and sustainable working processes. For example their ‘Scorecard’ identifies good and improvable parts of the production and supply-chain. Thus the consumers can easily identify core value points, and decide accordingly. (Made-By, 2013)

7.2.2

OPEN DESIGN AND OPEN SOURCE FASHION

Open source implies the practice of openly sharing and providing access to the “product’s source materials” (van Abel et.al, 2011). The open sharing of knowledge and information has been exemplified by science, through the peer review in open and global communities. The expression open source has its origin in software development. In the 1980s the Internet and more user-friendly platforms nourished the spreading of open source. Individuals started to share their knowledge, skills and time in web-based communities to test and develop software to be freely shared. Examples are the Linux software system and the Mozilla Firefox browser. (Fuad-Luke, 2009a; van Abel et.al, 2011)

Open design is based on collaborative initiatives, spread and connected via the Internet. Usually no monetary value will be involved. The results of the collaborative design process can be shared and used. Generally they are protected through, for example, creative commons licenses. These licenses offer the creators freedom in open and closeness of the content whilst still providing public availability. (creative commons)

Design is no longer to be understood as an exclusive profession which is carried out behind closed doors. New business models strive for a closer relationship with the end user and enforce a change in the design profession. (Fuad-Luke, 2009a)

Van Abel et.al (2011) authors of ‘Open Design Now’ claim that design may not remain exclusive – designers and users are asked to collaborate. In fashion, open design is a major step towards transparency, a shared understanding and enabling the consumers to become makers of their own wardrobe (Openwear, 2010). There are a variety of approaches to new ways of designing, such as providing downloadable patterns, information visualization and sharing data and also democratising design, production and consumption with new

business models and strategies (Fuad-Luke, 2012). For example the Waag Society research project ‘Smart Textile Services’ which is about developing methods and principles for new business strategies towards creating “Smart Textile Product Service Systems” (Waag Society, 2012).

The Internet still offers the greatest benefit in spreading knowledge and information. It is a useful platform to raise awareness and to share activism ideas. It offers direct contact and exchange between wearer and designer. Downloadable patterns, including sewing instructions, are gaining popularity. (Fletcher & Grose, 2012)

In 1949, Aenne Burda founded a fashion magazine in Germany: ‘Burda Mode’. The magazine was the first fashion publication that included actual sewing patterns, in addition to seasonal trends. This meant a lot of freedom for the people at that time, as they were able to sew and wear fashionable clothing even on a small budget. (bourdastyle, 2012)

Recently, young designers rediscovered the idea of selling their patterns alongside the products. This open sharing of clothes patterns is a form of fashion activism, as the designer gives the consumers the choice of changing the design according to their own preferences. The newly founded brand ‘Fashion-Hackers’ also promotes a downloadable collection. The sewing tips and instructions can be found on the company’s blog. Additionally, the creation of the next season’s design is a participatory process enabled through social media. ‘Fashion-Hackers’ invites everyone to contribute with personal wishes, ideas and sketches. (Schmuckermeyer, 2012). Exemplary in this area are the Openwear foundation, supported through the European Union, and Shareware (shrwr). Openwear Collaboration and Sharewear freely share their designs under creative commons licence. (Openwear, 2010; shrwr, 2010)

7.2.3

SLOW DESIGN AND SLOW FASHION

Slow Design involves the use of new activism and design tools to evaluate design and research. The Slow-lab, founded in the USA in 2003, promotes the following interconnected principles: Reveal, Expand, Reflect, Engage, Participate, Evolve. Strauss and Fuad-Luke (2008) state that the Lab sees its position as creating an active dialogue between users and designers, to create a common base of communication, understanding and collaboration towards slower and more sustainable design practices. Slow Design focuses on the individual and the collective well-being, and how this can be improved through design products or interventions. (Strauss & Fuad-Luke, 2008)

Fletcher (2008) explains that slow fashion aims for a prolonged lifetime, by ensuring high quality, local, ethical production and sustainably sourced materials. Fletcher and Grose (2012) discuss how slow fashion aims for a change in the system of manufacture and distribution. Slower cycles and reduced material throughput are in focus. Aesthetic durability will be facilitated through timeless styles and materials that age with beauty. (Fletcher, 2008)

Slow Fashion can for example be initiated by a unique and personal style (Gwilt and Rissanen, 2011, 153). If consumers follow a personal style, they can free themselves from fast fashion dictatorship (von Busch, 2008). This uniqueness is enabled by traditional ways of production which are in defiance of mass-production (Fletcher & Grose, 2012). As an example: Alabama Chanin, an Italian fashion designer, works with traditional embroidery, local labour and resources to design her collections. The garments inherit a sense of belonging through handmade and original techniques. This is likely to result in an emotional bonding into the garment. (Fletcher & Grose, 2012)

The project 'Neighbourhoodies' by Otto von Busch is inspiring for its context of belonging to a neighbourhood, interpreted and visualized with textile design. The project, which he initiated together with students from the London College of Fashion, centres around the interchange of fashion design, culture and local identity (von Busch, 2010). The project briefing attempts to visualize personal belonging through images of a neighbourhood, in a streetwear garment: a hoody (ibid.). (figure 03)

FIGURE 03

Project Neighbourhoodies, Image by Otto von Busch



7.2.4

FASHION HACKING

Fashion hacking represents the idea of hacking something which already exists, by modifying its original shape and thus give it a new meaning (Fletcher & Grose, 2012). The language used is borrowed from computer hackers. If hackers interfere with a system, they do not intend to destroy it, their intention is to democratise it with improved functionality (ibid.).

According to Galloway, Fashion Hacking fosters free access to technology, including the information and knowledge about it. This will empower the consumer and reduces one-way control, thus offering new and limitless design explorations (Galloway cited in von Busch, 2008). Hacktivism is defined by von Busch (2008, 59): "Hacktivism is the merger between political activism and hacking. It is the modification of systems, programs or devices to give more users access to action spaces that were otherwise unavailable. These new passages and spaces are shared within the community for others to build upon."

Some notable pioneers in Fashion Hacking are Otto von Busch and Gina Pilar González. Otto von Busch is known for facilitating several Fashion-Hacking workshops related to his doctoral research. These projects are also discussed online and deal with the subject of redefining fashion through enabling the consumer with skills and knowledge. (Fletcher & Grose, 2012; von Busch, 2008) On his website 'selfpassage,' von Busch also promotes his "recyclopedia" - a collection of sewing cookbooks. The downloadable PDFs instruct the user with explanations and photographs on how to redesign, upcycle or adapt used garments (von Busch, 2008).

Gina González, a fashion designer from Panama, approaches the user in her 'Hacking-Couture' workshops. She specialises in reinterpreting fashion codes of the major brands like Chanel and Yves Saint Laurent. In her workshops, González offers materials and identifiable patterns from known fashion brands, and invites the participants to hack

them. Thereby the patterns will be opened up and hence democratized for the public. (von Busch, 2008)

7.2.5

CO-DESIGN, CO-CREATION & PARTICIPATORY DESIGN

Co-Design has its roots in the US. Among others, the expression was coined and explored by Elizabeth Sanders and her colleagues at the design agency SonicRim (e.g. Sanders, 2002, Sanders & Stappers, 2008). Co-design shifts the focus from user-centred and empathic design for the user towards an ideology of designing with the user (Mattelmäki & Sleeswijk Visser, 2011). Co-design aims for a collaborative design process with the final users. This design method invites participants with different skills and backgrounds to join an explorative design process. "Co-design embraces multi-stakeholder involvement, where the stakeholders-as-designers, and the designers themselves, learn and create together" (Fuad-Luke, 2007, 39). The people are valued as being experts of their own experiences (Sanders & Stappers, 2008). Sanders and Stappers (2008) argue that through tools for visualization, designers can gain insight into these experiences.

Sanders (2001) advocates a new vision and attitude in the design field and promotes the idea of design for experience. In her opinion designers need to respect the ideas and visions of the people they design for (ibid.). "Co-designing threatens the existing power structures by requiring that control be relinquished and given to potential customers, consumers or end-users" (Sanders & Stappers, 2008, 6). Sanders (2001) starts the discussion about using supportive tools e.g. context mapping or making tools to visualize people's creativity. This concept would later on result in the expression 'co-creation'. Co-creation implies that the user is creating new ideas guided by design researchers

(Mattelmäki & Sleeswijk Visser, 2011). Co-creation is a very broad term, which represents according to Sanders and Stappers (2008, 2) any act of collective “creativity shared by two or more people”. Therefore they refer to co-design as a specific case of co-creation (Sanders & Stappers, 2008). In a wider context, co-design is a creative act of designers and non-designers sharing the work during a design process (ibid.). Co-design workshops are a common means of sketching out possibilities together with the affected people. A co-design session should provide a space for experiments and collaborative learning. (Mattelmäki & Sleeswijk Visser, 2011) Fuad-Luke’s (2009b) definition of co-design covers not only the actual design phase with the stakeholder, but also what precedes and follows it. He emphasises on focusing at first on the context and problem space, to create a comprehensive design brief and then also co-create and envision the future possibilities. He uses three interrelated loops to express the context of co-design:

“...*Experiencing* - what we already collectively know and feel

...*Problematising* - understanding the deep underlying problems together; and

...*Solutioning* - creating, designing and delivering solutions together” (Fuad-Luke, 2009b)

Participatory design has its roots in the early 1970s in Scandinavia (Björgvinsson, Ehn & Hillgren, 2012). Participatory design in designing Things through collaboration, participation and joint decision-making became important in relation to workplaces (ibid.). The empowerment of the workers, to have a say in the design of their workspaces, can be seen as a key starter of the participatory design movement (e.g. Björgvinsson, Ehn & Hillgren, 2012; Martin & Hanington, 2012, 128; Simonsen & Robertson 2013, 2).

Participatory Design wants to empower people to influence the products, services and environments they interact with (Mattelmäki & Sleeswijk Visser, 2011). Mattelmäki and Sleeswijk Visser (2011) state that the close link to political activity and the key word ‘empowering’ are central to the current participatory design expression. Par-

ticipatory design has a democratic and political value as it gives “people the right to influence their own workplace” (Greenbaum 1993, 47) In a workshop setting and a participatory design process, the participants are seen as a beneficial adviser and resource to contribute with their expertise through user-experience (Mattelmäki & Sleeswijk Visser, 2011).

Co-design and participatory design aim to reduce top-down hierarchies and thus challenge the current structures of the fashion industry (von Busch, 2008). Mattelmäki and Sleeswijk Visser (2011) state that the two expressions are often used interchangeably in the Nordic countries. New perspectives to the current economic system are approached through “greater democracy, improved empowerment and less domination” (Fletcher and Grose, 2012, 144).

The facilitation of co-sewing spaces or participatory sewing workshops is increasing. Collaborative workshops with post- or pre-consumer waste introduce the user to techniques of upcycling and redesigning clothes. In the workshops, the participant will be supported by ‘professional’ designers in the practical and conceptual phase of making and redesigning clothes (Fletcher & Grose, 2012). Now the designer slips into the role of an enabler or facilitator for the citizens. During this collaborative making, a relocation of the roles designer versus consumer is inevitable. New skills and deeper understanding of the products can be created through this collaborative process. The maker will be able to develop a deeper emotional connection to the garment, and the story of the production will be captured and worn as a personal achievement and sign of change (Fletcher & Grose, 2012).

In general, a workshop setting offers opportunities which otherwise restrict the single user from becoming active. Sewing machines, patterns, material and advice can all be found in one space. If the entry level is easy to reach through achievable goals, the fear of mistakes can be reduced. For this reason, co-sewing spaces like Nadelwald in Berlin (www.nadelwald.me) or the SweatShop Paris (<http://sweatshopparis.com/>) offer a great opportunity for beginners or occasional sewers.

7.2.6

MODULAR AND UPDATABLE CLOTHING

One of the only ways to design longer-lasting products is to accept and work according to the constant change in consumers’ desire (Chapman, 2009). Product design should offer the ability to adapt and reflect the current emotional state of the owner (Flechter & Grose, 2012, pp. 80-84). Products should be modular, multifunctional and trans-seasonal to outlast seasonal trends (Flechter & Grose, 2012, pp. 76-84). This idea offers not only new ways of consumption but also new opportunities for business and service strategies (ibid.).

Products, which are updatable and designed for multi-purpose, offer designers new areas to be creative. Kate Fletcher and Becky Earley (2003) initiated the 5-ways research project. They developed an updatable T-shirt and invited designers to co-work with users. The designers followed fashion trends and then reinterpreted them into do-it-yourself instructions. These were later sent by mail to the T-shirt owners. As a result, the T-shirt could stay in fashion if the redesign instructions were followed. Thus, a product can inherit more than just one meaning and story, it functions like an “ongoing movie” (Fletcher, 2008).

7.2.7

HALF-WAY PRODUCTS

A half-way product is designed as unfinished by intention. The designer leaves the end user an open space to customize and finalize the piece (Fuad-Luke, 2009a, 95). The expression ‘half-way product’, was first coined by Fuad-Luke in a talk presented at the Design for Durability seminar at UK Design Council in 2006. The key aspect is the non-functionality of the item - without the user’s own effort to complete it. “Products are ‘halfway’ if the original intention of the designer/manufacturer is not fully realized until the user has designed or finished the product in some way” (Fuad-Luke, 2011, 148). A half-way garment enables users to interact within the original design and create the product according to their own needs. While finishing the object, effort, thoughts and meaningful stories will be embedded, and thus differentiate it from a mass-produced item (Fuad-Luke, 2009a, 98).

Half-way products offer the user the opportunity to gain a deeper product understanding and form a common ground for knowledge exchange between designer and maker. Chapman points out that personal meaning can be created through active user participation and interaction with the product and its production process (Chapman, 2009, pp. 137-162). Through the half-way design approach, designers are challenged by skilled users who can question their ways of making things. When comparing half-way garments to user-driven product customization, do-it-yourself or redesign, I can assume that through the way they are designed, they will also enable lesser-skilled users to get involved in the making process, thus easing the entry step. Nevertheless, personal experiences, memory and emotions will be captured within the garment.

Half-way products are about enabling the opportunity to “shape and influence the nature of the narrative experience by the very nature of interaction that occurs between two parties...” (Chapman, 2005, 128). This will let the user become

an active influential factor in the product's story and not only a recipient of the designers given meaning (Hirscher and Niinimäki, 2013).

7.2.8

DIY, DIT & KITS

Half-way products as synergetic satisfiers to enable person-product bonding.

Half-way products can become synergetic satisfiers. The opportunity of personal involvement will encourage mental and physical engagement with the product. A personal and unique piece can be created. Thereby half-way products are able to satisfy existential and axiological needs, defined by Max-Neef (1991). The need for individuality, self-expression, creative expression and participation is also addressed.

Half-way products offer the opportunity to gain knowledge through experience and are likely to empower the user with new skills. Skilled users can experience personal development and growth which allows them improved product care, repair and interaction with the garment (Fletcher and Grose 2012). A garment which inherits the handwork and creativity of its owner embodies more personality than a mass-manufactured piece. The uniqueness will enable a higher value and a stronger person-product bonding (q.v. Chapter: Personal and unique style). This will help to increase the meaning and value beyond the seasonal fashion moment.

If products are handmade, they are more likely to become a person's favourite garment (Fletcher, 2008). They are able to fully express personality and individuality and become an important part of the person's wardrobe. Through the personal influence on self-made clothes, the consumer can gain a greater benefit. (Fletcher, 2008) Customisation or creation allows the user to develop an emotional bonding with the product. The more the user is able to be actively involved in the production process, the more likely he is to be emotionally attached to the products. (Chapman, 2009)

Mugge et al. (2005) discusses the possibilities of emotional product bonding through product personalisation. They claim that the toolkits offered by companies provide a "satisfactory balance between the products self-expressive value and the complexity of the personalisation process" (Mugge et al., 2005, 474).

Self-assembly kits with detachable pieces enable the user to get a deeper product understanding. For garments, this means personalisation, repair and redesign of the products and a lower-impact care phase through the possibility of washing individual parts (Niinimäki and Hassi, 2011).

The 'Local Wisdom' project in London, initiated by Kate Fletcher in 2009, celebrates the users' skills and helps to satisfy needs in a thoughtful way. Citizens learn about their products with each other's help. Fletcher and Grose (2012) state that home-made clothes are like a 'work in progress'; it is always possible to repair or adapt them, as their functionality is deeply understood.

“TRANSITION
TOWARDS SUSTAIN-
ABILITY REQUIRES
RADICAL CHANGES IN
THE WAY WE PRODUCE
AND CONSUME AND,
IN GENERAL, IN THE
WAY WE LIVE.”

(Ezio Manzini)

08

EVALUATION & SUMMARY OF PART II

Part I covered the problem of fashion and clothing overconsumption which is encouraged through planned product obsolescence and diverse drivers of consumer motivation and behaviour. I chose to focus on design for a more valued and meaningful person-product attachment, to encourage sustainable consumer behaviour. A detour on diverse design and fashion activism methods described the multifaceted implications for designers, consumers and others involved. Fashion activism questions the status quo of the designer, and challenges the current system structures by asking for transparency as well as democratising knowledge and information. Therefore design and fashion activism methods are a strong tool to enable greater awareness in consumers. They are empowered to break free from their dependency on mainstream fashion and even develop a more meaningful person-product bonding to their products.

In the following table 01, I compare different fashion activism strategies in their ability to foster person-product attachment through different emotional variables. These strategies were compared in order to identify the most beneficial and interesting approaches to explore: i.e. the strategies were compared according to how much they foster the key desired benefits of positive user experience, user involvement, personal achievement, a

sense of belonging, adaptability over time, and the creation of knowledge. I used the values 0 - 2 to evaluate the respective strength in creating person-product attachment. The value 0 represents that this intersection does not benefit person-product attachment, whereby 1 with a medium effect and 2 with a stronger effect. Based on these assigned numbers, I was able to evaluate the possibilities of the different strategies. I decided that for my goal of creating emotional person-product attachment, the methods of do-it-yourself, co- or participatory design as well as half-way and modular products offer the greatest potential. Nevertheless, I also try to include aspects of open design, as this shares similar values. However, I expect that co- and participatory design workshops have greater potential to foster person-product attachment, as they let the user get more deeply involved in the design process. Additionally, the involvement of lesser-skilled users can be enhanced through the accompanying advice of designers at their side. Therefore production failure and negative experiences can be prevented. Open design methods combined with participatory and co-design workshops offer great potential to create person-product attachment, democratise knowledge and thus educate the user. This assumption will be explored in case study 03.

↑ DESIRED BENEFIT TO CREATE P.-P. ATTACHMENT

| STRATEGY/ IDEOLOGY | EXPERIENCE | USER- INVOLVEMENT | ACHIEVEMENT | BELONGING | ADAPTABILITY OVER TIME | GAINED KNOWLEDGE | TOTAL |
|-----------------------------|------------|-------------------|-------------|-----------|------------------------|------------------|-------|
| OPEN DESIGN | 2 | 2 | 2 | | 1 | 2 | 9 |
| FASHION-HACKING | 2 | 2 | 2 | | 2 | 2 | 10 |
| SLOW FASHION | | | | 2 | 1 | | 3 |
| MODULAR & HALF-WAY CLOTHING | 2 | 2 | 2 | | 2 | 2 | 10 |
| CRAFTIVISM | 2 | | 2 | 2 | | 2 | 8 |
| DIY | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| PARTICIPATORY & CO-DESIGN | 2 | 2 | 2 | | 2 | 2 | 10 |

TABLE 01
Evaluation of different design activism methods to foster person-product attachment.

09

RESEARCH DESIGN

THIS MASTER THESIS CONSISTS OF FOUR PARTS. PART I, THE INTRODUCTION, A LITERATURE REVIEW IN PART II, TO FORM A THEORETICAL FRAMEWORK FOR THE FOLLOWING THIRD PART: QUALITATIVE CASE STUDY RESEARCH. PART IV BUILDS THE DISCUSSION AND CONCLUSION.

9.1

QUALITATIVE RESEARCH

Qualitative research involves the interpretation of information, gathered through observing people and filtering out the meaning, concept, symbolic and characteristics of their actions (Anderson, 2006). This research method is more subjective than quantitative research, and uses different methods to collect information from a smaller number of people (ibid.).

According to Denzin and Lincoln (2005), qualitative research is an exploratory activity which locates the researcher in the world, or situation to be approached. The researcher is part of a flexible process, as the method is process oriented (Anderson, 2006). Qualitative research aims to develop a theory, based on pre-formulated research questions which should be evaluated and analysed during and after the study (ibid.).

Denzin and Lincoln (2005, 3) define this methodology by using a set of “interpretive, material practices that make the world visible”. Thereby, the world can be perceived with different forms of representation: field notes, photographs and recordings. Qualitative research allows the study of something in its natural context. Researchers can interpret meaning and behaviour of people regarding the context. Research questions can be evaluated with a variety of research methods, namely case study, interview, participatory workshop, participant observation, photographs, questionnaires and related literature review.

Participatory Action Research – PAR

Kidd and Kral (2005) explain that in Participatory Action Research (PAR), the relation and atmosphere of researcher towards participants should be close and envision similar goals, which might even change during the process. The researcher should not impose his knowledge, rather offer an environment of learning and sharing ideas. PAR enables the participants to gain insight and professional knowledge in a specific area. Besides the purpose of knowledge gathering, the action-based concept of PAR is in line with a strong focus towards problem solving. Therefore, research questions may be redefined accordingly, to encourage solution finding. (ibid.)

The different stages of this PAR include planning, action, observing, evaluation and reflection, which will be illustrated in a process map below (figure 4). Criticism of the method claims there is a lack of standardized methods of research evaluation (Kidd & Kral 2005; Martin & Hanington 2012).

PAR is used in the third case study. I applied this method as the study benefited most from a close collaboration between researcher and participant. I wanted to explore the perception of half-way products and participatory design workshops in a natural context. This implied a strong focus on the process rather than the outcome. PAR offers a rather free methodological approach and is suitable if the data is evaluated qualitatively.

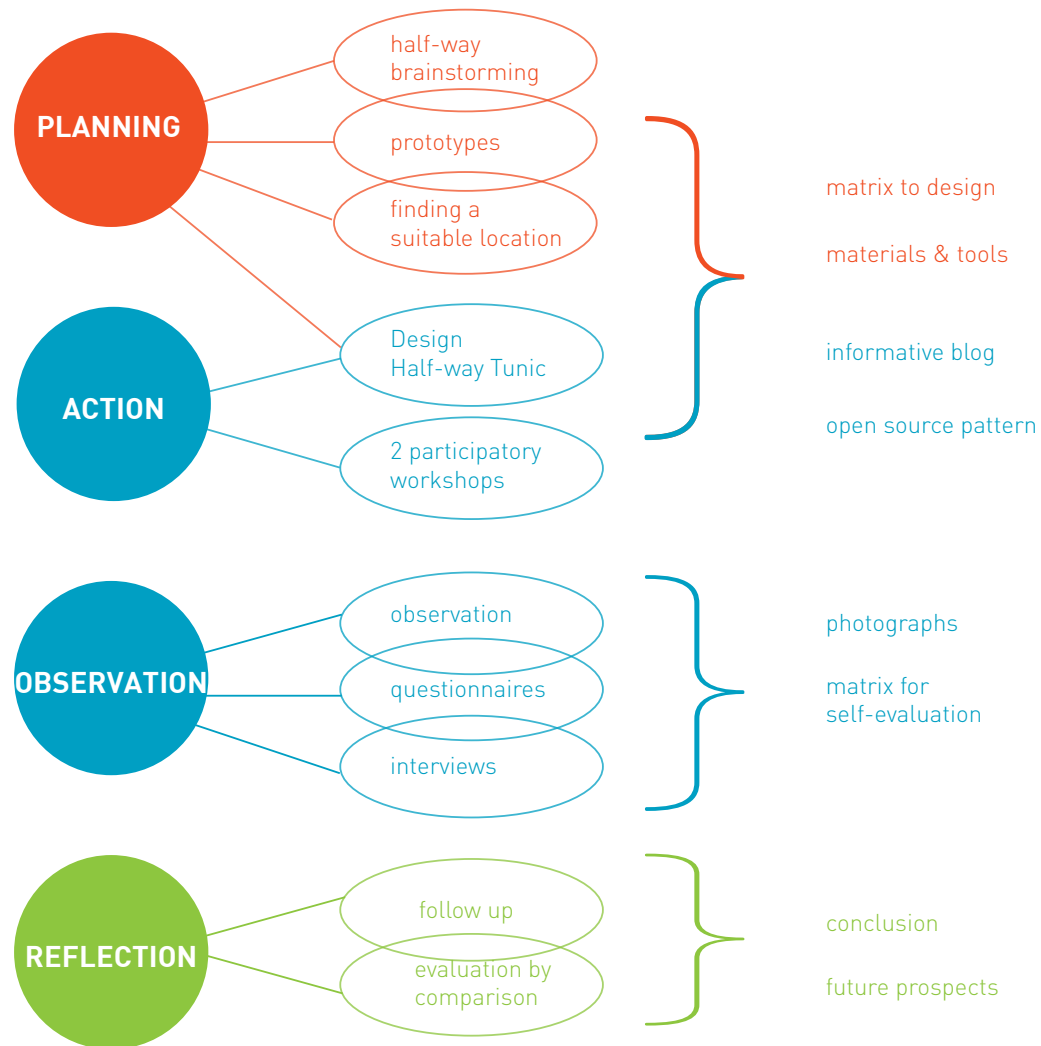


FIGURE 04
Process map of case study 03.

9.2

LITERATURE REVIEW

The literature review covers some of the research previously accomplished regarding consumer behaviour, person-product attachment and the practical application of various design activism strategies. The interrelation between wasteful fash-

ion consumption and possibilities for approaching this behaviour with sustainable design were reviewed. Based on this research I gained in-depth knowledge of the theoretical background and benefited from that knowledge for the case studies.

9.3

CASE STUDY

Qualitative case study methodology explores a complex phenomenon in its social and physical context (Baxter & Jack, 2008). Case study research includes a definition of a problem, which is based on a hypothesis. The information is collected with a variety of research methods such as interviews, questionnaires and observations. This data can be represented in a narrative form based on a revision of theory and hypothesis (Martin & Hanington, 2012). Case studies are a beneficial method in exploratory research. (Martin & Hanington, 2012, 28)

Part II of this thesis comprises three different case studies, each of which evaluates a different context and the possibilities of changing consumer behaviour through the application of different design activism tools. With this exploratory research, I intend to accumulate information about the positive or negative perception of the respective design tool in its social context. In the following sections I explain briefly the applied research methods, namely: design workshops, questionnaires, interviews, observations and a matrix.

DESIGN WORKSHOPS

Based on two participatory design workshops, I collected data on the usability and perception of the half-way product. The workshops also offered me the chance to conduct questionnaires, interviews and facilitate observations relevant for my research. "Design workshops are a form of participatory design consolidating creative co-design methods into organized sessions for several participants to work with design team members" (Martin & Hanington, 2012, 62). Design workshops build a good platform to teach and educate interested people in design-funded working techniques (Martin & Hanington, 2012).

QUESTIONNAIRES

Questionnaires were used during and after the participatory design workshops. With the help of this survey tool, I collected "self-report information from people about their characteristics, thoughts, feelings, perceptions, behaviours, or attitudes, typically in written form" (Martin & Hanington, 2012, 140). According to Martin and Hanington (2012) questionnaires are a good tool for evaluating the user's perception, and support personal insights gathered, for example, through personal observation. Observations and photographs during the design workshops supplemented the results of the questionnaires.

INTERVIEWS

Besides the questionnaires, I also used interviews as a further survey method. Martin and Hanington (2012) explain that interviews are often used as a part of a research strategy which is also using complementary questionnaires and observations. The interviews were conducted in person, to better interpret the personal expression and body language of the interviewee (ibid.). Besides the participants at the workshop, I also conducted a few semi-structured interviews with project initiators related to participatory design and fashion activism. the questionnaires.

MATRIX

According to Martin and Hanington (2012, 204) the weighted matrix, is a good tool to rank "potential design opportunities against key success criteria". The narrowing down of the concepts is however very subjective and qualitative. (ibid.) I used a similar approach for the evaluation of the most beneficial design strategies to create person-product attachment. I also worked with a matrix to evaluate the best method for the development and appreciation of the half-way product.

PART III



EXPERIMENTAL CASE STUDIES

10

A teal diagonal line on a white background, slanted from the top-left towards the bottom-right.

CASE STUDIES

The case studies gradually encourage the consumer to become an advocate for living sustainable fashion and clothing consumption. They explore different design activism methods which will be applied at a certain stage of the production process. This way, a broader audience can be reached and motivated. The challenge for the facilitator is to involve the stakeholders in the first place. The following graph (figure 05) shows how the three case studies target consumers to get them involved with sustainable consumption through different strategies of educating, enabling and empowering them.

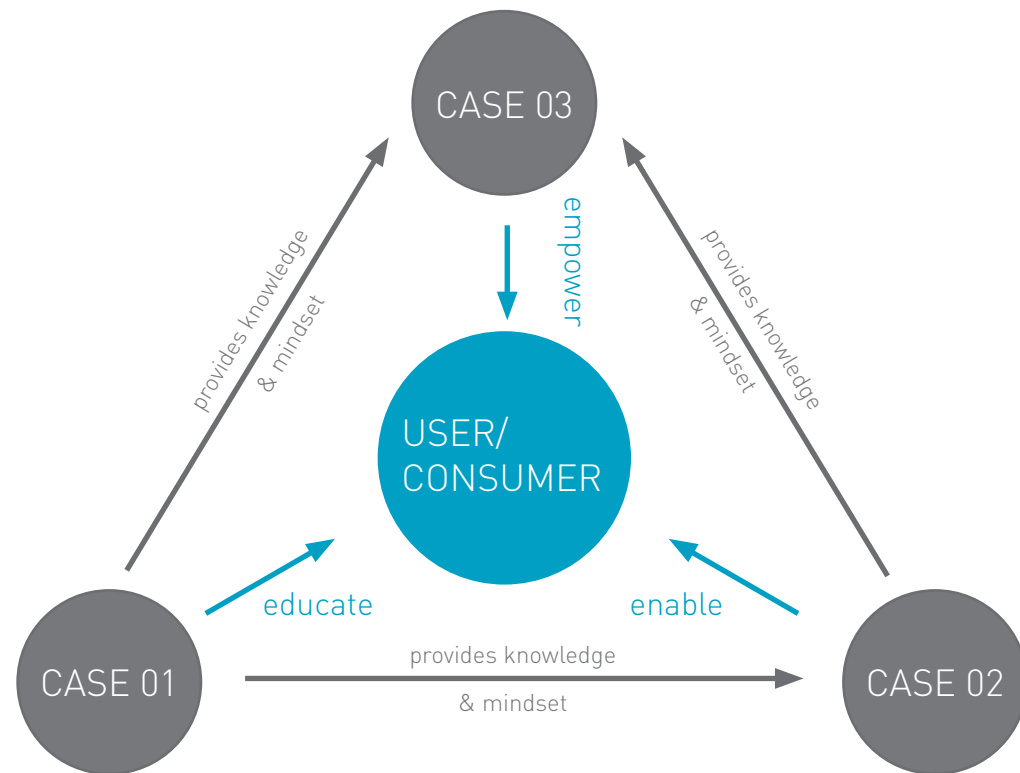


FIGURE 05

How the three case studies trigger the user/consumer for more sustainable consumer behaviour with different strategies to educate, enable and empower them for more independence.

This experienced passivity is also due to companies' influence on the consumer. They keep them in a passive role - exposed to little information about resources and production and given no opportunity to participate in the production process (Fletcher & Grose, 2012, pp. 157-158). Fletcher and Grose (2012) state that for a real transformation of the fashion sector, the population needs to gain knowledge. They also claim that 'effective communication does not always manifest itself in traditional visual or two-dimensional forms...' (Fletcher and Grose, 2012, 158). A learning process can often best be achieved outside of the standard classroom, with new tools like prototypes, hands-on workshops and internet competitions, to name but a few opportunities for designers to facilitate a learning process.(ibid.)

A broader target audience can only be reached if we look for alternative ways of building knowledge and skills. Knowledge which is built through experience, for example by making a piece of clothing, can be recognized in the field of co-operative inquiry as one of the 'four ways of knowing' (Fletcher and Grose, 2012, 158). This strategy expresses how we perceive things through "extended epistemology" - epistemology meaning a theory of how you know, and extended because it reaches beyond the primarily theoretical knowledge of academia"(Reason and Heron, n.d.; Reason, 1998, 4). These four ways of knowing are the following: experiential, presentational, propositional and practical.

EXPERIENTIAL KNOWING IS THROUGH DIRECT FACE-TO-FACE ENCOUNTER WITH PERSON, PLACE OR THING; IT IS KNOWING THROUGH EMPATHY AND RESONANCE, AND IS ALMOST IMPOSSIBLE TO PUT INTO WORDS.

PRESENTATIONAL KNOWING EMERGES FROM EXPERIENTIAL KNOWING, AND PROVIDES ITS FIRST EXPRESSION THROUGH FORMS OF IMAGERY SUCH AS POETRY AND STORY, DRAWING, SCULPTURE, MOVEMENT, DANCE AND SO ON.

PROPOSITIONAL KNOWING "ABOUT" SOMETHING, IS KNOWING THROUGH IDEAS AND THEORIES, AND IS EXPRESSED IN ABSTRACT LANGUAGE OR MATHEMATICS.

PRACTICAL KNOWING IS KNOWING "HOW TO" DO SOMETHING AND IS EXPRESSED IN A SKILL, KNACK OR COMPETENCE. (REASON, 1998, 4)

It is said that the greatest value is generated if they are congruent: "if our knowing is grounded in our experience, expressed through our stories and images, understood through theories which make sense to us, and expressed in worthwhile action in our lives" (Reason and Heron, n.d.; Reason 1998, 4). Building an educated society, where the individual is able to actively influence power structures with their knowledge and skills, needs to be developed step-wise (ibid. 158). Different methods, and tools, can trigger people to participate in taking action.

I created my own process map, which builds upon the 'four ways of knowing' and restrictive factors such as education, time, money and essential practical skills for influencing consumer behaviour. I see the greatest potential for changing behaviour in offering different levels of engagement with the subject, from low to very high. With information, we can trigger action and awareness (case 01) and in the best case this action will result

in a change of attitude and behaviour towards the purchase of more sustainable fashion garments and will entail slower consumption (case 02). The goal is the creation of a deeper person-product attachment facilitated through deeper understanding and practical skills. The final level of 'practical knowing' is expressed in the knowledge of how to do something, representing the acquisition of a skill or competence. These skills can enable the user to prolong a product's life-span. The generation of skills will be facilitated in my last step of the process framework - 'active making & co- or participatory design' (case 03). This process map illustrates how theory and case studies build upon one another (figure 06). The case studies gradually foster person-product attachment with increasing levels of involvement.

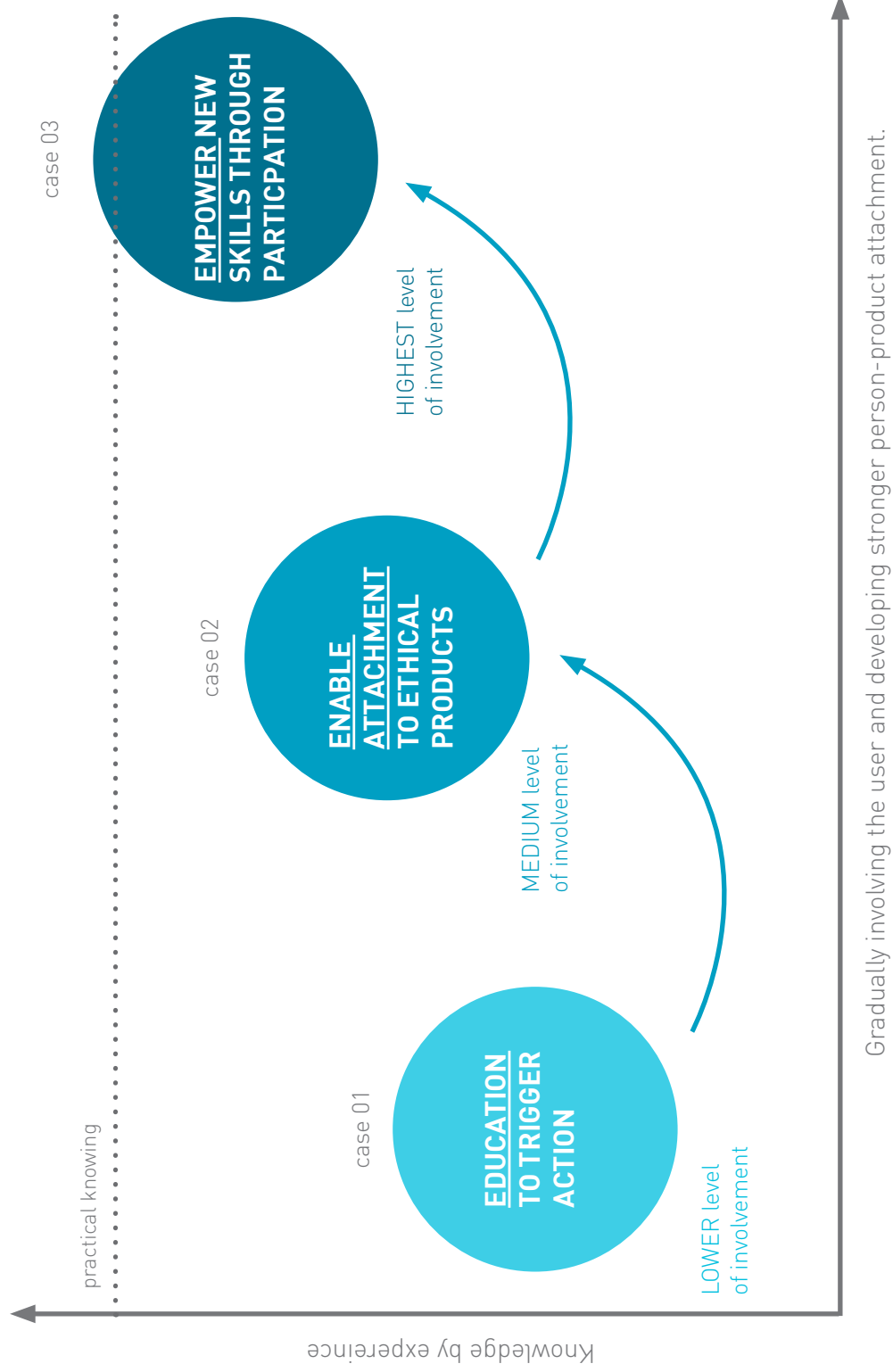


FIGURE 06
The three case studies foster person-product attachment through gradually increasing the level of involvement.

CASE 01

CONSUMER EDUCATION AND AWARENESS TO TRIGGER ACTION.

ENABLING SUSTAINABLE CONSUMPTION
WITH CONSUMER EDUCATION.

Designers – especially graphic, media and communication designers - have the ability to empower consumers with well-grounded data visualization and information graphics. These graphics can for example allow consumer education and result in a better product evaluation before the purchase.

Roberts (2006) describes graphic design as a dialogue, not a monologue. Readers interpret what designers try to communicate. Designers have the power to bring across a certain message by assigning it a visual image. Similarly to the design and resulting use of a product, graphic designers have less influence on how the audience will understand

and interpret their message. Due to the personal and educational background of their recipients, designers have to attempt a deep understanding of their target group (ibid.). This will enable a better usability and understanding of the intended message.

Nevertheless, graphic design is powerful in spurring people into action. Glaser and Ilic (2005, 222) state that “... the act of forcing the impossible is, in the history of political revolution, often catalyzed by something as flimsy as a poster plastered on a wall - the perfect poster on the perfect wall at the perfect moment.”

RESEARCH QUESTION & AIM OF THIS CASE STUDY

My thesis journey started with this case. Graphic design is the design field I am most familiar with. I wanted to explore what possibilities graphic design offers to encourage sustainable consumer behaviour through consumer education. Consumer education and awareness are a necessity to ease a transition towards sustainable consumer behaviour.

Papanek (1984, xi) stated that: “Advertising design, in persuading people to buy things they do not need, with money they do not have, in order to impress others who do not care, is probably the phoniest field in existence today.” However, graphic design is not equal to advertising design. What beneficial impacts can graphic design have

in defeating artificially created desire with the same techniques?

This case study combines fashion activism with visual communication and working for a non-profit organization. By working with an NGO – Amnesty International – I can implement the statement of Papanek (1984) that a responsible designer can help by giving her/his skills, time and talent voluntarily to support a good cause. Amnesty Finland represents a valuable platform to apply the first step of the process map: education and information about the history and impacts of the garments. Using a web-tool, I want to allow a better product evaluation before the purchase.

PRACTICALITIES

COOPERATION PARTNER:

AMNESTY INTERNATIONAL

Case study 01 is in cooperation with Amnesty Finland. Amnesty International was founded by the British lawyer Peter Benenson (Amnesty International, 2013). Amnesty's mission is to fight for everyone's right to live in dignity and for every voice to be heard, without fear of torture or execution. Amnesty's members support the organisation in their efforts to bring human rights issues into focus by letter-writing, online and offline campaigns, demonstrations and lobbying (Amnesty International, 2013).

In our first meeting, we discussed possible projects which could relate to my vision and aim for the master thesis. It was evident that the Finnish Amnesty Store (<http://www.en.amnestystore.fi/>) would be a good base for the project. The store sells organic and fairly produced garments and accessories to financially support the work of Amnesty.

We agreed that the online store would benefit from a clearly communicated transparency of the products' origin and its production and manufacturing facilities. Until then, the Amnesty store had not focused on how to express the fair and organic garment production.

DESIGN PHASE

On these grounds, I received a clear design brief, including the visual guidelines of Amnesty International. We agreed that the relatively new Amnesty Store would use a presentation tool to illustrate the garments' origin. Most of the products are cotton based, and thus have a relatively high energy and CO2 impact during the use phase (Allwood et al. 2006). I therefore suggested incorporating aspects on sustainable consumer behaviour like care, use and redesign instructions. However, the main focus should be on an easily

understandable platform visualizing and explaining the garments' history.

Central for Amnesty was to show the transparency of the production line, where a T-shirt can be traced back to the origin of the fibre. Mutual trust towards the products and production should be provided. The online presentation tool allows the user to understand the inherited production history. Stories and visuals should foster a higher emotional value of the garment.

Against the background of existing tools and methods (q.v. - Consumer Education and Communication), I decided to develop an interactive map which will be available at Amnesty's online-store. The tool should be easy to use and accessed before each purchase. The graphic guidelines defined colour choice and font, as well as the style of images to be used. For this reason I had more time to concentrate on the usability aspects and the implementation of additional information. All garments sold at Amnesty are manufactured in the same location, therefore one story applies to all. However, I still wanted to enable the user to discover the production line in a playful manner.

I started the design process with a simplified world map, applying icons at each production facility. After a first test version, I decided to replace the icons with the names of the locations, connecting them with a dotted line which illustrates the flow of production and the journey of the garment (figure 07).

At first I planned to place a location named 'You' to bring the user's role to special attention. Nevertheless, after this trial version, I decided it seemed logical to position page visitors within the slides 'Design made in Finland', as the majority of them are Finnish. In this respect, I used the same icon for the 'Design made in Finland' and the 'Redesign by the user'. As the theory reflected - with the right instructions we can all become makers of our own goods (figure 08). (q.v. Design to enable)

The tool's functionality is at first reminiscent of the old 'Made-by track&trace tool'. However, I added functions that go beyond those of the 'Made-by tool'. I paid more attention to visuals and explanations of the separate workstations, as



FIGURE 07 & 08

Screenshots from the Amnesty Web Tool.

well as offering a lot of further sources of information on sustainable fashion consumption. My goal was to design a user-friendly platform, which also invites unaware customers to gain insight relatively quickly into key aspects of a sustainable fashion production and remind them of their own responsibilities.

FUNCTIONALITY & IMPLEMENTATION

The web tool uses html, css and javascript for the implementation. On visiting the Amnesty Store, the user will be exposed to a simplified world map, where clickable country names indicate any relevant location. Hereupon a javascript-based pop-up window will open with a simple navigation. The slideshow will give details on the first process step of this location. Arrows allow users to browse forward or back in the production process, thereby they explore the different steps of material sourcing, dyeing, sewing, transportation etc. Every location provides links to either the local partner or information sources such as the 'Fair Trade' organisation. Instructions on special care, reuse and redesign are provided in the 'Suomi' (Finland) section. So far, the map is only available in Finnish and is implemented at Amnesty's online store under 'ethical principles' (eettiset periaatteemme), one click away from the starting page. Additionally, the tool will be advertised in an upcoming press release and also appears before every online purchase can be completed.

<http://anjahirsch.de/amnestyfinal/amnesty.html> or <http://www.amnestystore.fi/page/3/>

CHALLENGES & LIMITATIONS

Graphic design is a powerful tool for influencing consumers' behaviour. I discussed the opportunities as well as the restrictions as regards the problem of information overload and the attitude behaviour gap (q.v. consumer behaviour).

The limitations of this case study and the web tool itself are to be found in the fact that deeper knowledge will only be gained by personal initiative. It is beyond the designer's influence to ensure that the page visitor stays, reads and is affected by the information provided. Even though the tool is easy to access and understand, the user needs to have a personal motivation to read the information.

Quantitative measurement of the page visitors and clicks through the tool was beyond my scope. For further research, an evaluation should be conducted as to whether the knowledge gained possibly changed consumers' behaviour or decision making for the future.

DISCUSSION

The first case study explored the practical possibilities of graphic design to encourage sustainable consumer behaviour through consumer education. The goal was to find a graphical way to communicate and reach jaded consumers to bring them closer to their garment's inherited production story.

This case study benefited my personal learning process in evaluating design tools and platforms to provide users with a tool to educate and inform themselves about the manufacture of the garments they are about to purchase. Comparisons were drawn between the possibilities of information graphics, existing web tools and campaigning to raise awareness. I explicitly chose the web format as it was the closest link to the customers of the webstore, and it offered me the opportunity to learn new technical skills for web development.

I discovered that combining designers' ethically inspired goals with company's economical goals is a real challenge. This project had to take into account the economic importance of not leading potential customers away from the page, but still encouraging them to take the time to study the information offered. We had some discussions with Amnesty regarding which web-links would be beneficial and which would rather distract the user. I filtered the information sources to be relevant to the page visitors. Also the aspect of redesign will always open new doors for services, but not necessarily bring Amnesty more profit. This project was a balancing act between supporting an NGO with my skills whilst also trying to represent the idea of a sustainable fashion industry.



CASE 02



COMMUNICATING AN ETHICAL AND LOCAL PRODUCTION STORY THROUGH THE OBJECT ITSELF.

ENABLING THE ACQUISITION OF ETHICAL PRODUCTS.

Based on the process map already discussed, the second case study offers consumers the chance to adapt their habits to consume products with an underlying ethical standard. Companies and designers have to render this ethical choice possible.

This design-driven project will contribute to the exploration of applying sustainable design and fashion activism strategies within a company

setting. The platform will be a Helsinki based social enterprise – Uusix Verstaat, which represents high ethical working standards. This social enterprise builds the bridge between research and the restrictions imposed when working within a company setting in which the design outcome eventually needs to be sold.

RESEARCH QUESTION & AIM OF THIS CASE STUDY

The second case study explores the possibilities of using local production and textile design to enhance a feeling of belonging and thus foster person-product attachment. How can we effectively communicate the local and ethical provenance of a product in itself, and thus create a sense of consumer attachment towards it? Emotional attachment through a sense of belonging, captured within a product's appearance, is to be explored. Otto von Busch (2010) argues in his project 'Neighbourhoodies' that our neighbourhood reflects who we are, what we do and how we live our life. He emphasises the impact of the neighbourhood on our gestures, values, fashion and body signals. Based on this statement, I hypothesise that a communicative textile design can evoke emotions, and is likely to initiate a valued person-product bonding. Can a design object gain more emotional value if it is able to communicate its inherited story? I want to explore whether local visuals, which are easy to read by 'insiders', can foster a certain way of belonging and bonding towards the item. These visuals should work as a key which stands for their origin, their group or inner circle, and thus represent a certain symbolic meaning.

This case study explores whether it is possible to create textile designs, and thus products, which communicate a certain belonging to the place of manufacture and purchase. The textiles are printed at Uusix Verstaat. Everything is produced locally and is skilfully handcrafted, which makes every item unique. The results are products which can be purchased with a good conscience for an ethical decision. They will gain ethical benefits through the local production, because Uusix Verstaat offers the participants of their rehabilitation program a chance to learn new skills and gain self-confidence by producing these handcrafted design items. This collective process of making things together and the experience of learning new skills can have positive effects on self-awareness and self-esteem (Fuad-Luke, 2011). Fuad-Luke (2011) states that social and human capital can be created through the social interaction and collaborative making process.

PRACTICALITIES

COOPERATION PARTNER:

UUSIX VERSTAAT

Uusix Verstaat is a Helsinki city social enterprise which uses design and handcrafting as a tool for rehabilitation. Uusix provides a platform for discouraged or struggling individuals who are unable to find work in a normal environment due to personal or emigrational circumstances. The participants of the rehab program are mostly long-term unemployed and are difficult to be placed by the general employment agency. They are employed for an initial period of three months. If necessary and beneficial, their contract will be prolonged. If this is not the case, they will be released onto the regular employment market with the help of a tutor.

At Uusix, rehab clients can explore a different working environment and at the same time learn new skills. Uusix has 13 workshops for different materials and tasks. Materials which can be worked with include, for example, textiles, wood, ceramics and metal. Each participant at the rehab program has a story to overcome, just like the products which also all have a history. Uusix works mainly with recycled materials, donated by various companies. The application of thoughtful design and skilled handcrafting will therefore give obsolete products a new life.

Material resources are pre- and post-consumer waste. For example textile left-overs which can not be used industrially, hospital sheets and surgical coats, airline uniforms, blankets and seat-belts, colourful carpets used in fair stands, large advertisement banners and obsolete office furniture to name just a few.

DESIGN PHASE

This case study emphasises textile and pattern design as a tool for communication. The goal would be to test whether products can communicate their inherited story through local production with the use of visuals. Uusix offered a great partner in exploring this possibility as they have local manufacturing and hand-printing facilities, which allowed a smaller scale application.

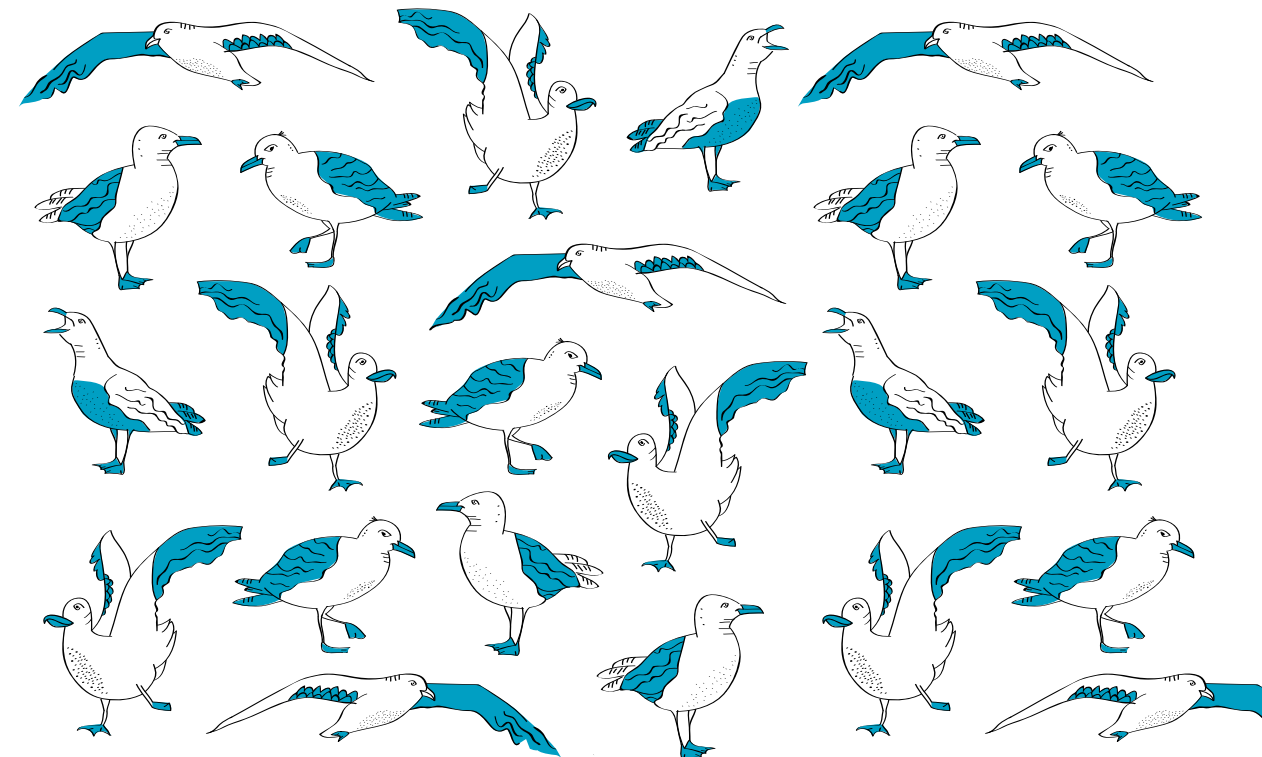
During a first meeting I gained insight into the company aims, possible cooperation projects and its function as social enterprise. Based on my prior education and skills in illustration, as well as my special interest in textile design for communication, the project of designing visuals for the product line 'Helsinki 200 years' was chosen to be part of my master thesis. This project offered the opportunity to use local facilities and handcrafting to create textile designs and accessories which will represent and inherit the city's past, present and future. The design brief indicated that the Unioninkatu would be in focus. The street is historically important and also hosted major events during the 2012 World Design Capital year.

Visual stories in the textile design and stories of material and people will be combined in a unique product. Each item will involve the former product story, as nearly every item is fully made of recycled products. The majority of the products are made with the hands of a local Helsinki inhabitant who will give the product a unique touch. These special product features are explained individually in their hang-tags, which clarify the story of the enterprise, the material's origin and the history in the Helsinki prints, depending on the pattern (figure 09).



FIGURE 09

Individual hang-tags to explain the story of the product and the print.





Impressions gathered during
a walk along the Unioninkatu.



Images which inspired the illustrations and prints.

I started the design process with an overview of the previous patterns, as well as collected information on the print and production facilities. An easy-to-apply print pattern should be created, which will allow the rehabilitee to participate in the pattern design. On this basis I summarized key points that framed the design opportunities and challenged my skills to create prints that would work on a variety of products and surfaces. Uusix Verstaat asked for prints that would unite the new product line. Besides textiles, these products included wood, ceramics and various other materials, depending on the season.

KEY ASPECTS FOR THE DESIGN

- 1) Represent Helsinki and the Unioninkatu by visualizing it in a printable graphic.
- 2) Create a connection to the previous designs of Uusix Verstaat.
- 3) Offer the possibility to include others (rehabilitees) in the design process and pattern creation. Less detailed prints for usability aspects.
- 4) Create appealing designs, where locals as well as tourists feel a sense of belonging, to create a special memory and a valuable item - handmade in Helsinki.

I gathered impressions by taking photographs, notes and some sketches during a walk along the Unioninkatu. On this basis and using some historic facts, I started illustrating key visuals. I used a simple characteristic style, which should underline the handmade aspect.

After my first concept presentation to the project manager at Uusix, we agreed on the hand-drawn style and decided to create a concept including three different topics: Firstly items of Helsinki, secondly important or significant buildings and as a third subject an abstract map which represented the Helsinki street network embedding the Unioninkatu. We assumed that this would allow a variety of visuals which

could reach a broader audience.

Visualizing and interpreting the symbolic meaning of objects for another person is a great challenge, if not nearly impossible. Therefore, I planned to initiate a participatory design workshop with some rehabilitees at Uusix Verstaat to gain input as to the meaningful aspects of Helsinki from their point of view. Unfortunately there were not enough participants for a workshop at the design stage. For this reason I was left with my own impressions and the input of some locals.

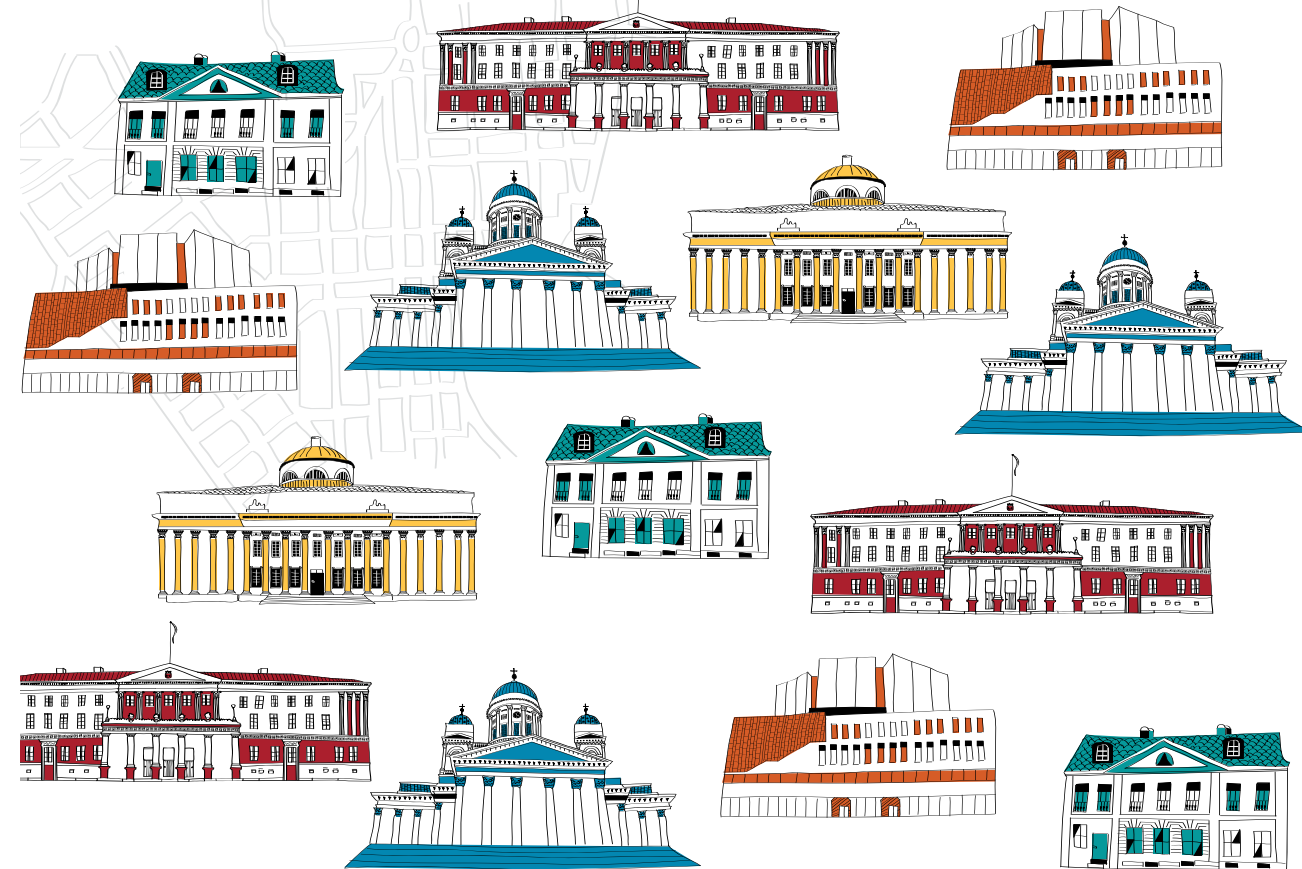
I began with single illustrations which could be used for silk screens, as pattern or single prints to encourage the printer's own pattern creation. The hand-drawn illustration style underlines the handmade nature of the product and forgives small printing mistakes. Still, the implementation was challenging as I used outlines with separate colour fillings, which require precision while printing. This way the textiles, which are mostly plain white, could be more colourful and detailed in comparison to the wooden products, which only use outlines on a coloured background.

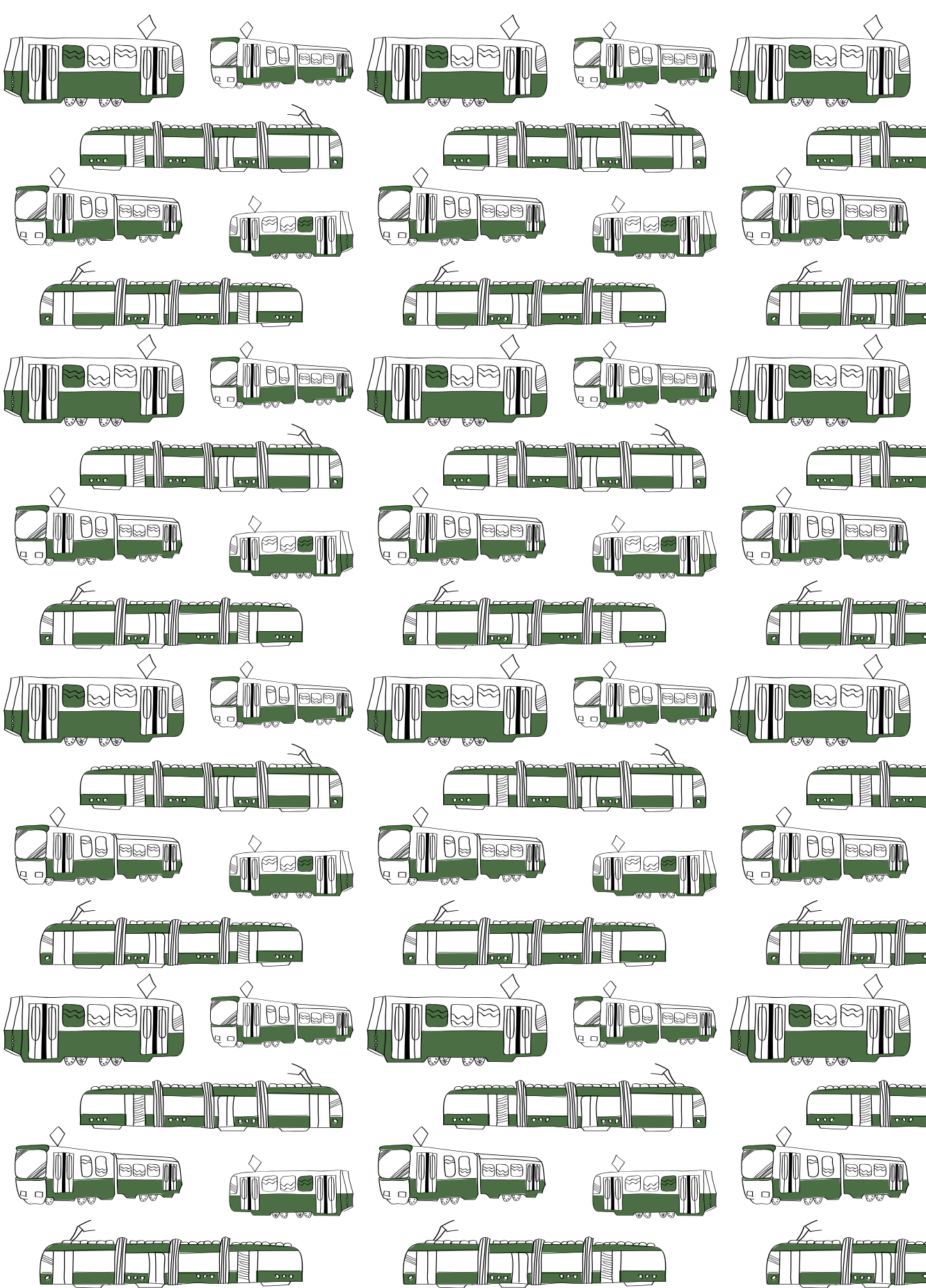
After a first round of test prints, we selected the best illustrations and I started to create sample patterns. I used a colour pallet which forms an inspirational base, but does not restrict the makers in their own creativity. Diverse prints were created and applied on textiles, wood and ceramic.

The different topics were clustered into:

The 'Items of Helsinki' comprised a collection of boats, the seagulls with all their expressions as well as trams and the well known Jopo bike.

As 'Significant buildings' I illustrated the Tuomio-kirkko (White Church) as the main tourist attraction and the town's landmark. Additionally the oldest brick building in the city centre, Sederholm House, which functions as a Helsinki City museum nowadays. The old University library, the City Hall and the Finlandia Hall by request of the city. Those were used as single prints and combined patterns with the abstract city map.







Example products from the 'Helsinki Prints' collection.

ANALYSIS OF THE IMPLEMENTATION

During the spring, I worked as a part-time designer on the implementation of the new print designs. Together with the workshops at Uusix, we discussed the application for the diverse illustrations and created the patterns. The realisation of some prints proved to be more difficult than I expected, due to the material constitution or my overestimation of the workers' skills. However, it did not harm the final outcome of the products. A variety of patterns were created through trial and error as well as by reducing details in the illustrations.

Besides Uusix's standard products, a worker driven by personal initiative produced a wonderful patchwork blanket. The creator collected the left-overs of the printed textiles and assembled them into a blanket. Upon completion, the first baby born on Helsinki day received the blanket as a present. (figure 09)

I am sure that this blanket will gain a special status as it inherits a long story which is still evolving. Its value is formed through the skilled and caring maker, who was deeply committed to the completion of the blanket.

I really enjoyed working with Uusix Verstaat. The enterprise offers a truly interesting working environment for designers, led by the skilful teamwork with people from different backgrounds. I assume that Uusix could definitively develop their product line further, and thus offer a great variety and local possibility of purchasing ethical products. I benefited from working at Uusix, as their facilities offer a motivating and alternative playground for designers. I realized how much I enjoy working in close cooperation with the makers. I gained knowledge and new skills, as I had to familiarize myself with silkscreen printing techniques and pattern design.

This project also led to a further cooperation which I mention as a side note. Uusix Verstaat got the opportunity of being represented and visualized in a room in the 'Made in Helsinki 1700-2012' exhibition at Hakasalmi museum. The museum offered Uusix a tangible and visually appealing space to represent their story. I was the main

person responsible for the design and implementation of the space. Together with the different workshops, we created an interactive room which shows the people behind Uusix and plays with recycled materials in the form of an installation. In the same room Uusix holds monthly workshops with these recycled materials.

LIMITATIONS

Designing products which have a symbolic meaning for another person is very challenging. The same applies to products which communicate their local and ethical origin by themselves, as it depends on the user's interpretation of what the designer intended to communicate. The visual interpretation of Helsinki was mostly based on the designer's point of view and some feedback of Helsinki citizens.

The cooperation with Uusix formed a good base to render ethical consumer purchase possible. Uusix is financially supported by the city and this allows them to sell products at prices which cannot be matched by small local design enterprises. Of course, this is a debatable issue, as the final goal of a sustainable business also requires economic sustainability.

A quantitative evaluation of the research question was not possible, as for this the customers should have been interviewed about the reasons for their purchase and whether the textile design reached its aim of creating a sense of attachment.



FIGURE 09
patchwork
blanket

DISCUSSION & FUTURE POSSIBILITIES

The second case study drew a line between the theoretical framework and an exploration of applying activism methods in a working environment. Diverse stakeholders were involved in the design and manufacture, and ensured a positive and tangible product outcome. This case study explored how to communicate the local and ethical provenance of a product and thus enhance the appreciation of the object.

This case study focused on the possibilities of offering the consumer products which are ethically defensible. Based on the feedback of Uusix, the textile products and the entire product line gained great recognition from the Helsinki City Institutions, including repeat orders, as well as consumer appreciation on the design markets and in the stores. This shows an immediate success of the marketability goal. With alternative design methods and a limited set of resources, ethical and marketable products were created. It also illustrates that consumers are striving for new ways to fulfil their needs and that new business and design strategies have to enable them to do so, even if it requires regulations or support by government institutions. Sustainable consumption behaviour

has to become an easy-to-adapt and affordable habit, to make it mainstream.

The case study showed that a collaborative design process, even with unconventional methods, can open up alternatives to mainstream production systems. This anticipates an innovative design process, where cross-disciplinary collaborations are appreciated. These explorations are what make products more unique through their own narrative. The product is able to represent a story in itself. The local and handmade production especially forms a connection to the product's ethical origin. In the case of Uusix, it is even possible to generate a greater benefit for the workers through rehabilitative work.

Further research could verify through interviews with the consumers and a follow-up evaluation, whether the illustrations on the products were able to create a visual connection to the origin of the product and thus facilitate a stronger person-product bonding.

CASE 03

BEHAVIOURAL CHANGE THROUGH PARTICIPATORY DESIGN WITH HALF-WAY PRODUCTS.

DESIGN FOR A VALUED
PERSON-PRODUCT RELATIONSHIP.

Knowledge through experience is the third step in my self-defined 'process map to trigger action' for sustainable fashion consumption. By involving the user in the garment-making process, I want to enable a deeper engagement with the product, which is likely to foster awareness and bonding to the item. Active participation, in comparison to passive reception, will give the consumer a better understanding of the product's functionality. This is important when thinking of the product's use phase and postponing its disposal, the two last

steps of a product life cycle. Through a deep product understanding, users are in a position where they are able to change, adapt or repair garments themselves. This will make products less likely to become obsolete due to bad fitting or breakage. I want to make consumers question their role and responsibilities. Consumers have to be able to decide what is a qualitative product, and how much it is worth. With this case study I try a balancing act, which will shift and rearrange the roles of designer, user, maker and producer.

RESEARCH QUESTION & AIM OF THIS CASE STUDY

Design for person-product attachment is challenging, because it is based on personal and emotional values, habits and the attitude of every individual. Consumers crave unique and intelligent products which allow an increasing bonding over time (e.g. Mugge, 2007; Marchand & Walker, 2008). Chapman points out that personal meaning can be created through active user participation and interaction with a product and its production process (Chapman, 2009, pp. 137-162).

Through a first literature review regarding person-product attachment I came across diverse concepts that try to give the final product user more say in the final outcome of the product. Mass customisation services, provided for instance by *adidas* or the Swiss *Freitag* bags, offer some potential, however the opportunities to make the product unique are often restricted to one or two adaptable elements. Other concepts often have the same restrictions, therefore I was fascinated when I came across the idea of 'half-way products'. The concept represented what I wanted to offer to the consumer, summarised under an identifiable name. However, I did not find many applications in the field of fashion and clothing. Modular and trans-

seasonal clothing as well as 'pre-cut' assembly kits or redesigning existing garments do not really follow the same concept. I discovered a lack of studies regarding half-way products and participatory clothing design and their potential to create person-product attachment towards clothing.

But, where is Half-way? Is Half way in between the piece of fabric or even fibre and the ready-to-wear garment? The challenge is to meet the point where people are likely to get involved. Is it $\frac{1}{2}$, $\frac{3}{4}$ or anywhere in between? I found that there is not only one answer. However, I try to evaluate preferences, based on the variety of participants in the sewing workshops of case study 03. I use a self-evaluation matrix, inspired by Fuad-Luke's matrix, which sets 'Making by the user' vs. 'manufactured' in correlation to 'self-design' vs. 'professional design' (Fuad-Luke, 2009a, 99).

My self-evaluation matrix places time in relation to skills that are required. Before and after two participatory workshops, participants were asked to position themselves. As expected, the skill level of the participants varied a lot, therefore it is difficult to estimate where consumer and half-way product merge and meet optimally. Nevertheless,

I assume that a successful half-way product is one which enables the maker/user to gain satisfaction though freedom to finish it according to personal preferences, but does not discourage the user with overly difficult processes (figure 10). In the best case, the half-way product will allow the user to gain knowledge while producing. Implementing half-way items within a workshop setting will ensure a positive product outcome, because advice is provided by the presence of skilled designers and participants.

Creating emotional relationships between product and user already has to be considered by the designers during the design process. Based on the literature review, I hypothesise that user-involvement in the design process will facilitate a stronger personal and emotional value towards the item, which is therefore likely to maintain a longer product lifespan. Designers have to reserve a space for this emotional bonding and memory within the products. Creating emotional bonding through memories is especially challenging, as designers do not have much influence on how people interact with their products beyond the purchasing act (Fletcher & Grose, 2012). Creating value and meaningfulness towards a product is key to creating sustaining products. I assume that participation in the design and making process may change consumer behaviour towards a more caring person-product relationship (Hirscher & Niinimäki, 2012). Therefore, this case study explores whether participatory design processes and consumers' own activity allow behavioural change through a tighter product bonding and understanding. The resulting research question elaborates whether it is possible to create a stronger valued person-product attachment to a garment through the use of half-way products and participatory design processes. And, can this participation in the design process change the behaviour and attitude of the consumer/user? The personal physical and mental design work used to finish the garment will be a key to creating a value feeling and sensitivity towards the product. The research includes a comparison of whether consumers will value self-made or personalized garments more than purchased items. This will be facilitated through the consumers' co-creation of

a garment, where the use phase will be followed up by email. Design opportunities to enable higher personal or emotional value towards products may be distinguished. Emotional value can be generated through positive experiences and thus enrich a person's life and well-being. This emotional value and attachment can be created in the use or making phase of a product (Mugge et al. 2009). Mugge (2007) states that memory is intertwined with the product through personal input, whether physically or theoretically, and this can stimulate a higher value and emotionally stronger person-product attachment. The emotional meaning of a product has a deep influence on its longevity (Mugge, 2007).

I will therefore approach the consumer with participatory workshops to encourage them to get involved in the design process and create their own piece of clothing. A positive atmosphere within the workshop has to be ensured. The atmosphere and emotions experienced during the making process will be beneficial to creating a positive and memorable experience. The owner connects this experience to the product, and the piece will function as a storybook and thus have a meaning beyond pure functionality (Fletcher & Grose, 2012).

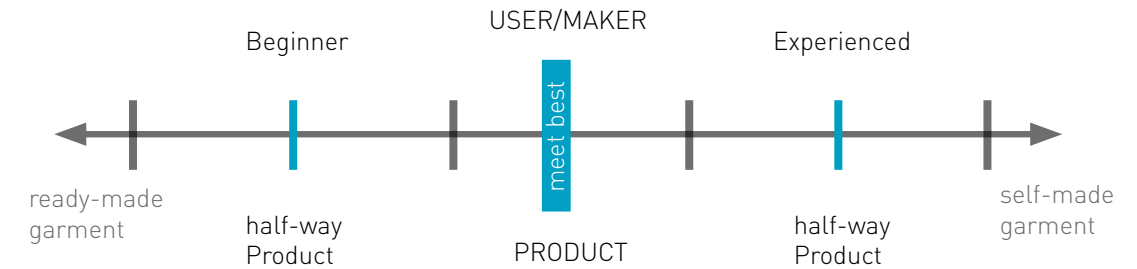


FIGURE 10
Interpretation: Where is 'half-way'?

PRACTICALITIES

COOPERATION PARTNER

The two workshops were held in two different locations to experience the usability of the concept in diverse settings. The first workshop was organized during a big recycling fair called 'Kierratystehdas' in an old factory building, close to the city centre of Helsinki (www.kierratystehdas.fi). The workshop space was shared with 'Defender', a Helsinki based redesign artist, Goa von Zweygerk (www.defender.fi). Sewing machines were provided by 'Bernina Finland' and the materials were donations from Emmaus and left-overs from the preparation process of the half-way tunics.

The second event was arranged in a smaller setting at the facilities of an organization called UngMartha. UngMartha is part of the Martha organization or 'förbundet' (www.martha.fi). UngMartha focuses mainly on networking, educating and organizing events for children, youngsters and young adults. Workshops, camps and courses aim to bring them closer to sustainable lifestyles, hand-crafting and household activities. For this reason, the half-way clothing design workshop fit well into their philosophy and target group.

DESIGN PHASE

The design process started with drawings of possible applications for a half-way product. I gave myself guidelines that also represent key points for sustainable clothing design or fashion activism strategies. Due to the lack of projects on half-way clothing, I had to explore my own definition and key factors of the meaning of 'half-way' for a garment. I stated several requirements to be fulfilled. Additionally I used a matrix to explore different levels of a half-way garment.

- 1) The sewing steps have to be simple enough to be made by beginners.
- 2) Several levels of difficulty have to be possible, to offer challenges to more skilled participants.
- 3) A lopsided seam should not ruin the shape of the garment. Frustration through mistakes and too long working processes have to be reduced to a minimum. Therefore I chose a loose fitting garment.
- 4) The loose fit would also prevent the garment from going out of fashion quickly or becoming ill-fitting, as it can be adjusted easily.
- 5) Different materials should be useable and preferably collected second-hand.
- 6) Ideally the half-way product can be reshaped, transformed and redesigned if desired. The piece also has to offer a certain stage of multifunction to be worn on different occasions.

I started with sketching out possible applications for a skirt design, where the user could include old garment pieces they had at home. After several tests versions with this skirt, I continued with a multifunctional dress. This dress could be worn on both sides, with a variety of add-on details like sleeves, collar, pockets, belt etc. (figures 11-12). However, this turned out to be too difficult to be made within a short time and with an inexperienced user. I carried on with the idea of a poncho, and finally reached the concept of a tunic [2].

The basic concept of a tunic is a short and loose dress which can be worn in many different ways. With this idea, the points concerning loose fit and multifunction were already met.

The tunics were designed according to two patterns. One uses the option of utilising old T-shirts, which are a large amount of textile waste. The other pattern offers a few more possibilities for adaptation by the user. Both patterns are open-source on the project blog (<http://rotgelbgruen.blogspot.de/>). With detailed instructions through information graphics and photographs, the whole process can be followed and made at home (appendix 03).

[2] Tunics have always been a part of our clothing tradition they can be worn by men and women. A tunic in the definition of fashion and clothing can be "any of various hip-length or knee-length garments, such as the loose sleeveless garb worn in ancient Greece or Rome, the jacket of some soldiers, or a woman's hip-length garment, worn with a skirt or trousers" (the free dictionary).



FIGURES 11 & 12

Half-way skirt prototype.

Multifunctional dress to be worn on both sides with add-on accessories.



left page: preparation of the tunics
this page: Half-way tunic for the workshops

For the workshops I prepared 20 half-way tunics. The materials were sourced second-hand, found at flea-markets, the Helsinki Recycling centre, and donated by Emmaus [3]. The tunics were prepared according to a matrix (q.v. figure 14, page 110), to offer different stages of difficulty. The pieces were designed to offer an easy entry step, even for sewing beginners. At the workshops I provided the future users with instructions, more material to add possible accessories and details, as well as sewing tips for future evolvement of the tunic. The blog can be accessed for advice, feedback or a look-up guidebook. The half-way tunic makes it easy and fun to get interested and enthusiastic about sewing and the whole clothes making process. I wanted to enable the participants to understand and evolve a meaningful bonding with their garments. This half-way product should become a reminder of the possibilities and stories that lay in every single garment. Therefore, I decided to offer every maker a label which could be sewn into their finished tunic. The value{able} label left space for the maker to insert the name and time spent in accomplishing the garment. This label wants to keep memories awake. It also encourages the consumer to be more observant when next buying a garment and to take a closer look at the care and manufacture label. Thus awareness towards the maker and origin of that piece can be raised. Careful reading of care instructions supports a product's lifetime through knowledge about the appropriate treatment. Deep product understanding and awareness of the real costs and impacts of production and manufacture will help the customer to look out for qualitative and 'good' fashion and clothing.

PROCESS

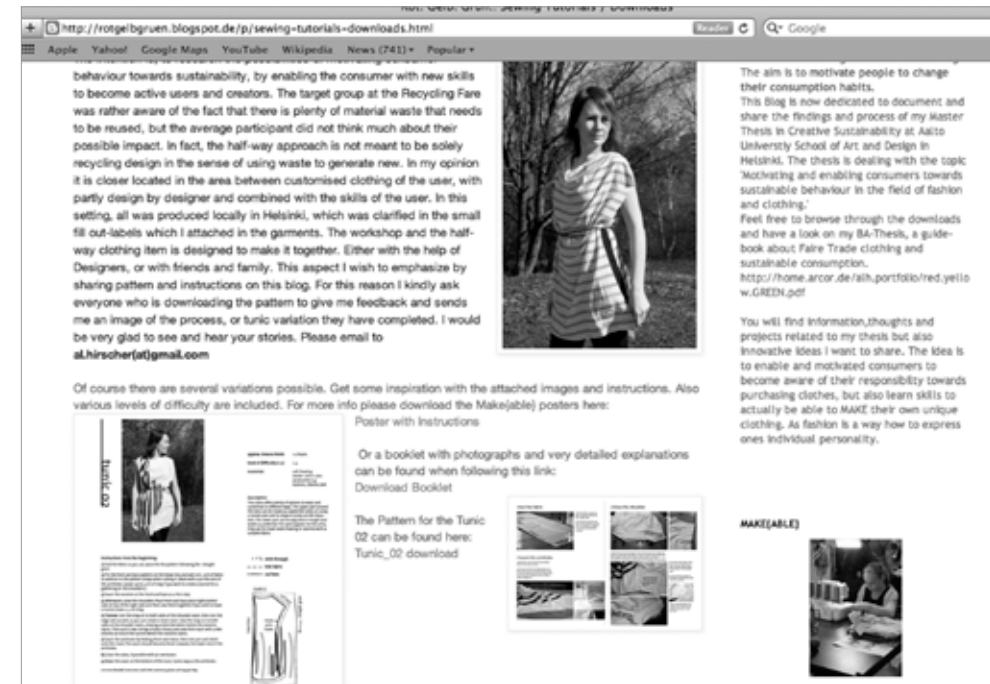
This case study uses qualitative research methods to offer an insight into and estimation of the possibilities and perception of half-way products as a design tool to enable better user-satisfaction and stronger person-product attachment. The study was held in Helsinki Finland in 2012, and the data was gathered mostly through two participatory clothing design workshops. This exploratory case study focuses on consumer's perception towards the participatory design approach, especially regarding clothing design.

As clothing design and participatory workshops are a rather new experience for me as well, I went to explore different workshops beforehand and got in touch with other designers in that area. I was interested in hearing about their approaches to gain more insight into this new design territory. In addition, I benefited from my former interest and contacts through participation in redesign workshops in Germany.

The case study workshops provide a basis to test the usability in real social and physical conditions. Interaction between user and designer allows the user to get deeply in touch with the materials, design processes and manufacture of a garment. This approach involves all stakeholders, to facilitate a better understanding of each other's tasks and responsibilities for future scenarios.

The project was documented with photographs and a shared online platform – a blog. (<http://rotgelbgruen.blogspot.fi/>) Furthermore, my own as well as other designers' observations during the workshops provided a base for later reflection upon the general feeling, emotion, situation, and presence of facilitator and participants. The data for the evaluation and analysis was collected with questionnaires and a follow-up via email. Personal interviews during the workshops were conducted as well.

3] "Emmaus is a politically and religiously non-aligned international movement, whose mission is to help those in need and thus promote social justice and peace" (<http://www.emmaushelsinki.fi>).



Projectblog with sewing tutorials.



DESIGN WORKSHOPS - MAKE{ABLE}

The workshops took place in the aforementioned locations. For better identification and promotion, the workshop concept was named Make{able}. The name should represent the objective of enabling people to make their own garments.

The target group was set to be young women in the age of 20 to 35 years, due to a study conducted in the greater London area. The research showed that the most ethically unaware shoppers were in the age group of 25 to 35 years, and the consumers who spend the most on fashion were women between the ages of 18 and 24 years (Miller, 2008). I assume that these findings can be adapted to the greater Helsinki area, as London also represents the circumstances of a Western-European capital.

For the first workshop, I prepared ten half-way tunics, as I could not estimate the number of

participants beforehand. For the second workshop I asked the participants to sign up via e-mail or a 'facebook event' (figure 13), to prepare the required number of tunics. Besides the tunics, discarded garments and textiles were provided at each workshop, to support a creative working space. Various designers, skilled sewers and myself gave the makers assistance and advice. Of course, the process of working together also encouraged participants to advise and help each other.

From all the participants at the workshops, 18 members of the above-mentioned target group filled in the prepared questionnaires after completing their half-way tunics. Due to the small number of participants, the case study can only show an exemplary outcome.



FIGURE 13
Facebook event for the second Make{able} workshop





this page: workshop at the facilities of UngMartha
following pages: impressions from the two workshops



MATRIX

The garments were designed according to the aforementioned matrix (figure 14) which measures user involvement, from fully designed by the designer towards the level of skills needed. This matrix was used in two different ways: Firstly the designer evolved the different options of how to design a half-way garment. Through this visual guideline, different stages for user involvement could be made. The tunics

were marked with the corresponding number in the matrix (figure 15). Secondly, the matrix was used as a self-evaluation tool in the workshops. Participants could evaluate their skills before and after the workshop to decide which level of difficulty they would be able to accomplish (figure 16). Thereby, success and improvement of the user could be measured.

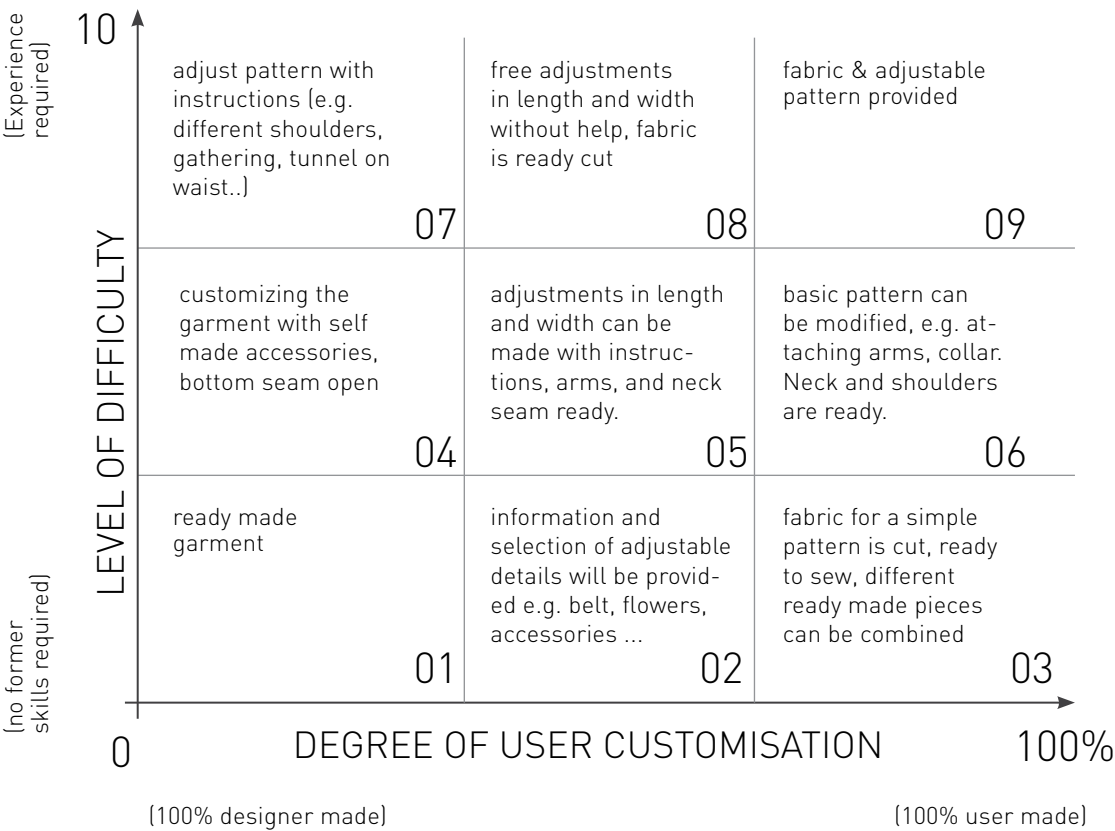


FIGURE 14
Matrix to design the tunics.



FIGURE 15
The tunics are marked with the corresponding number in the matrix.



FIGURE 16
Participants evaluate their skills before and after the workshop.





QUESTIONNAIRES,

INTERVIEWS & OBSERVATION

For analysis of the results of the workshop regarding the research questions and the perception of the half-way product, participants were asked to fill out a questionnaire (appendix 01) after completing their garment. The four-part questionnaire included the following sections: general experience level, their perception of the fashion industry and their relationship towards their clothing, to evaluate their current understanding of the system. In addition, two sections about their experience during the workshop and working with the half-way garment were included. Finally, they had to provide an expected value level for their self-assembled tunic. This question was also compared to a follow-up survey. The questionnaire had free form and multiple-choice answers allowing suggestions among various items.

For hypothesis verification, the follow-up (appendix 02) was sent to the participants by e-mail 2 months later. 14 out of 18 participants responded to the follow-up questionnaire. The follow-up included ten questions, to collect information on the perceived value and emotional attachment to the half-way garment in comparison to a purchased product. Some of the questions examined the way participants felt after the workshop, to evaluate their enjoyment of the making process and whether they linked their positive feeling towards the achieved piece. Of great interest were the experienced emotions about gaining new skills, and whether they felt any restrictions or discouraging factors. Finally, the participants were asked if they felt a change in their consumption habits.

Besides those questionnaires, I had some interviews with participants of the workshop and discussions among designers and makers in the workshop setting which I observed, photographed and partly audio-taped. This material provided me with an overall basis to give a qualitative evaluation of the success, findings and resulting assumptions gathered through these workshops.

EVALUATION & ANALYSIS

Previous knowledge about sewing, sustainable consumption and the perception of fashion varied a lot among the participants. There were two skilled regular sewers who started from scratch and reworked old garments or fabrics to a new tunic using the provided tools and patterns for ideation. However, the majority (16 people) sew very rarely and some had not sewn since primary school. The participants ranged from a few very fashion aware consumers who enjoy shopping weekly to participants who purchase clothing rarely and mainly second hand. The consumers who were less concerned about current fashion trends stated that they would shop for clothes less than twice a month. Those participants also seemed to value their products more in general. Through conversations during the workshops it became apparent that the majority were interested in making things for themselves, but did not feel able to start working, creating and designing their own garments. This leads to the assumption that the interest in making garments is rising, but the majority do not have the knowledge and skills to start. With the concept of half-way clothing and products, designers have the chance to ease this critical entry step. Quoting one of the participants: *"Now I dare to start, sewing patterns look so difficult."*

Accordingly, the concept of half-way products was very much appreciated by all the participants. All 18 participants agreed that they appreciated the fact that it was half-ready as it made it easier to accomplish something within a shorter time, but still have the chance to make it according to their own preferences. Participant: *"It was easier than I thought, good instructions made it really fun!"* The design and sewing steps of the tunic were prepared to be very easy, even for the beginners. It was a very critical point to consider the opportunity for participants to work independently, and not frustrate them with too difficult tasks or too much designer influence. Even so, it was important to offer different challenges for the variety of participants.

One of the main goals of the workshop was to create a positive atmosphere and feeling of joyfulness, happiness and satisfaction in the making

process. Thereby positive emotions can be captured as memory within the garments. All 18 participants agreed that they gained a feeling of happiness and satisfaction during the making process or after seeing their results. It made them proud to be able to achieve something wearable by themselves. Also, everybody stated in the follow-up questionnaire that they wore the piece regularly or up to five times in the past two months.

This positive feedback can be seen as a first indicator towards reaching one of the workshop purposes. Especially the filled-in valueable labels got a great response, as they captured the effort the maker put into the garment. Person-product attachment benefits from a strong link created to a memorable moment shared with that piece. For this reason, the chance to fill in the name of the maker as well as the time it took them to accomplish the piece will keep the memory awake as long as possible.

The study elaborated whether making and participating in the design-process results in a closer person-product attachment, and if it can create stronger personal and emotional value towards an item. This question can best and most accurately be answered within a longer term study. Nevertheless, 15 out of the 18 participants ranked the expected value of their garment as 'high' or 'very high' (figure 17). The reasons stated were the personal accomplishment of the piece and its consequent uniqueness. This supports the hypotheses and illustrates further research opportunities.

All participants stated that they enjoyed the workshop setting and would appreciate regular workshops or similar sewing opportunities. This shows the opportunities in exploring fashion activism strategies to empower the user. In comparison to other strategies discussed, participatory clothing design workshops, for instance with half-way garments, offer realistic chances to bring consumers closer to the garment making process.

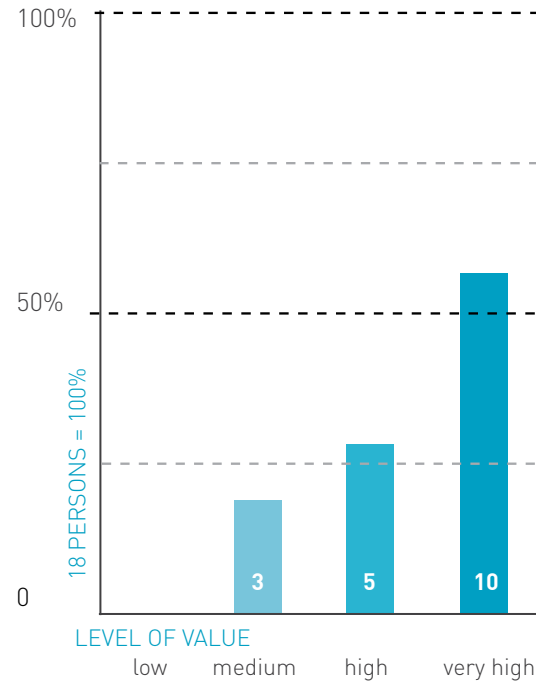


FIGURE 17

Answers resulting the expected value towards the garment right after the workshop. (feedback of all 18 participants)
Question: 'Do you feel that you will value this new item you made with your own skills more than a solely purchased product?'

Even though the participants had a very diverse perception of the fashion industry and its influence on them, all seemed to enjoy creating something unique. The memento of the collaborative making process will be captured within the garment and thus make the piece to something special. Nearly everyone mentioned owning one or more favourite pieces in their wardrobe which makes them feel especially pretty and self-confident or is a very comfortable piece. On average, most people answered that they are attached to this garment as it inherits memories of a place or a person. If this idea of a 'story' can be linked to a garment, the self-made aspect will definitely have an impact as well. One of the participants stated: *"The cloth (Tunic) has more value in my eyes, because I was also making it. It has a story now."*

The results of the follow-up questionnaire were positive in regard to the expected value level. Even so, the value level of 'very high' was partly re-evaluated to 'high'. The majority of the participants agreed that they either love or somewhat value their self-made piece more in comparison to purchased garments (figure 18).

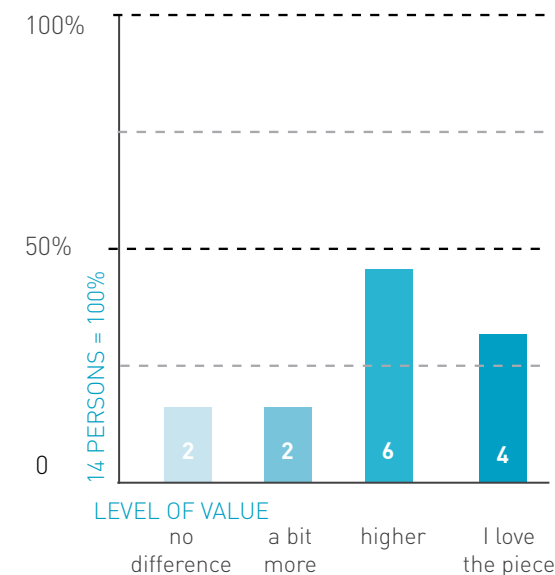


FIGURE 18

Showing the value of the tunic in comparison to a purchased garment after two months time (feedback of 14 participants).
Question: "Compared to your purchased clothes, do you value this garment you made with your own skills more?"

In general it can be seen that people who value their clothes highly tend to place very high value on the self-assembled item too. In respect to the question of whether it is possible to change consumer behaviour through the process of making, the results were not yet able to show a clear tendency. A longer period of time and further data collection are required for a true change of behaviour, which involves learning new habits and new sustainable lifestyle strategies. Moreover, sewing is not a skill which is fast to learn. For a behavioural change regarding more user-made products, a variety of workshops with different topics would be required. About half of the participants stated that the workshop and making process influenced their purchasing behaviour regarding fashion and clothes shopping. They agreed that they acted more responsibly and aware since this experience. This shows that their attitude was affected, but I do not yet have proof of whether their behaviour has changed as well. The other participants were either already aware of the subject, or did not have the time to get more deeply involved. For the ones with a high level of awareness, the half-way product fit well in their current life-style.

The feedback about the learning and making process was very positive; after two months time, the majority of participants were still eager to use their skills for other sewing projects (figure 19). Relevant educational information to support this eagerness is provided via the accompanying blog. This platform provides inspiration on sustainable fashion consumption and offers downloadable patterns and do-it-yourself instructions for further sewing and redesign projects. This media should serve the participants, and others involved, as a self-educational tool and resource guidebook, to make sustainable consumption also attractive outside the workshop atmosphere. I assume that a change of behaviour and attitude can be facilitated through a variety of opportunities. For example by offering the possibility to change the garment according to the individual's changing needs. This effort will be invested, as the garment has a strong emotional value to the owner.

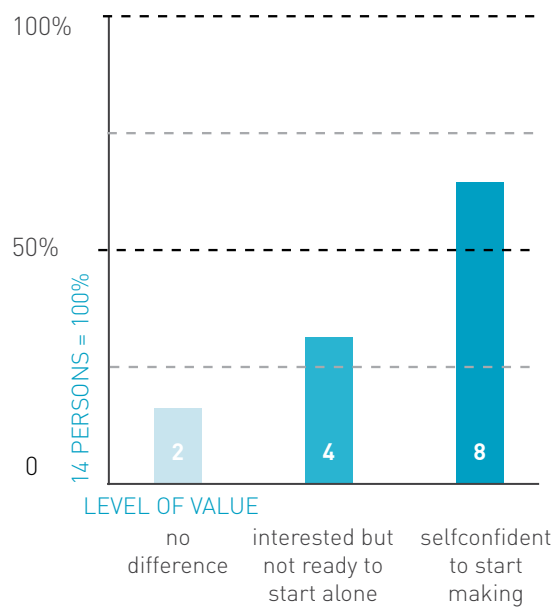


FIGURE 19
Gained knowledge and skills. (feedback of 14 participants)
Question: "How do you feel about half-way clothing design now after participating the workshop?"

All participants agreed that they would be interested in joining another workshop, as it helps to give motivation. The good atmosphere of making things together was mentioned several times. The joyful experience of collaborative working resulted in positive social relations between the participants and the designers.

I evaluate briefly the impacts of my actions with a new open-source tool/framework: 'design-CAPITALIA'. The framework allows evaluating which 'capitals' a specific strategy will "grow, nourish, protect, conserve or use less" (Fuad-Luke et. al, 2012, 2). The framework, which comprises six key capitals and 29 sub-capitals, is based on Jonathon Porrits, 2005 created 'Five Capitals Framework' – natural, human, social, manufacture and financial capital and extended to the design field by Alastair Fuad-Luke (Fuad-Luke et.al, 2012; Fuad-Luke, 2009a). I identify that collaborative working experience with a garment is able to grow and nourish different 'human' and 'social' capitals. The human

capitals are the following: 'emotional' and 'physical' capital through learning new skills and interacting with materials and other participants in a new environment. Additionally, social capitals as of 'cultural', 'spiritual' and 'mental psychological' are created.

In general, the workshop setting offers opportunities which otherwise deter the single user from starting sewing and creation by themselves. Sewing machines, patterns, material and advice can all be found in one space. For this reason co-sewing spaces like Nadelwald in Berlin (www.nadelwald.me) or the SweatShop Paris (<http://sweatshopparis.com/>) offer a great opportunity for beginners or occasional sewers.

LIMITATIONS

The emotional bond towards an object requires time and use of it. In regard to the reviewed literature, I can assume that a strong person-product attachment evolves over a longer period of time, and thus can not be fully measured within this case study research. The same applies to the possibilities of evaluating a successful behavioural change among the participants. However, a positive estimation about the success factors of the half-way garment can be made.

Another limitation is the respectively small number of participants, which suggests further research. This research could investigate a larger number of participants and following up over a longer period of time.

FUTURE PROSPECTS

In spite of the positive feedback on the participatory workshops, the question arose as to whether a market implementation of half-way clothing and half-way products should be evaluated. I wonder if it is possible to reach the critical mass with an open and participatory design approach such as the half-way product? The research showed some potential to experiment further, if the concept – half-way garment in the context of a workshop setting would be appreciated by the average consumer.

On basis of the research, I discovered a broad variety of fashion activism strategies and projects which were too numerous to be explained within this thesis. Surprisingly few projects go beyond the research approach and result in a self-sustaining market solution. These new design solutions still seem to be the subject of design research only, and have not become established in the course of action of consumers and producers.

As an example: in 2000, Droog Design introduced the 'do create' line in cooperation with the publicity firm KesselsKramer. A brand was created which did not comprise any product. 'Do Create' offered experiences enabled through co-creation with the consumer. The results were exhibited in fairs, but never had the aim of being sold to the masses (drooglab, 2000).

Half-way products, especially sewing kits, can rarely be found in (online)stores. What are the real market possibilities, or are half-way products just another research tool? I imagine that a half-way sewing-kit can be an 'intelligent' product, which requires the consumer's interaction before the first use. The half-way product can offer different stages of difficulty, depending on the consumer's prior skills. However, every piece can be adjusted to measure and personal style. This will result in unique products which offer more personal value than mass-customization as discussed previously.

In respect of this idea, I interviewed two fashion brands and their respective designers, namely Sophie Schmuckermeier, from 'Fashion-Hackers', located in Berlin, Germany and Tjasa Avsec and Tina Hocevar from 'PaulMalina'. 'PaulMalina' is a Slovenian Brand, which offers ready-cut garments

plus supplies and instructions in one package. This idea combines slow and local production with consumer independence in creation.

Both brands use either open source, fashion hacking or an interpretation of the half-way in their business strategy. Their answers revealed that the subject is too new for conclusive results. 'Fashion-Hackers', as described earlier, and 'PaulMalina' have only recently started their business and are therefore not in a position to give sufficient proof of whether fashion activism can fully incorporate a sustainable business. Nevertheless, Fashion-Hackers stated that within the first two months, the brand already received a tremendous amount of positive media and client feedback. PaulMalina pointed out that their idea was based on giving friends and other interested parties the opportunity to make clothes themselves, even if they still feel insecure with the design aspect. For this reason the sewing-kit met with great appreciation, as it makes it easier to get started with sewing. PaulMalina also mentioned that the people who got into contact with them were very enthusiastic and inspired by their approach, and follow their process.

This beneficial feedback and the results of my case study permit the assumption that further research and practical implementation should be promoted. These interviews and my research results allow the estimation that half-way products, and similar concepts, offer interested consumers an alternative to ready-to-wear garments. The important key factor is the personal input and achievement of the user, which is very likely to result in a stronger person-product attachment and thus facilitate sustainable garments. On top of that, I suggest that fashion design education should also broaden its focus on activism strategies and encourage students to approach new solutions which challenge the current fashion industry.



Some workshop participants
with their tunics.

DISCUSSION & CONCLUSION

This case study demonstrates that there are possibilities for designers to help the consumer create an emotional and valuable bond with their clothing. Designing with an aim to value creation can lead to products to which the owner has a stronger emotional attachment. In the long term, the evolving relationship with the garment can not be surveyed within this study, but it can be estimated by the participants themselves. As stated above, the value of the self-made garments differed regarding the person's perception of fashion and their existing wardrobe. However, the majority stated that they valued the accomplished piece more than their purchased products. If a strong person-product attachment is facilitated through positive emotions, the piece is less likely to be disposed of after a short time of use.

The positive response of the participants, partners and supporters is of special note. Without their openness, these events would not have been possible. The Makeable event was positively appreciated by both locations. The Swedish Martha Magazine, for example, published an interview describing the idea and workshop concept (figure 20).

It can be expected that the appreciation of clothing can be enhanced through user-involvement in the making process. This is based on the follow-up research. The case study showed that the aspect of 'making' can be a key factor to create higher value and attachment to clothing. Half-way products offer the chance for self-expression, as well as providing an easier starting point for involvement. Production failure can be prevented within the setting of a participatory workshop.

Involving and activating people to invest time and effort requires finding the right starting point. The matrix applied in this case study allowed estimations regarding the current and preferred status of the user for participatory design. The matrix reflected a clear prior workshop preference of half-way products in the lower right section (figure 21). This placing represented a lot of opportunity for the user to make design decisions, though the level of skills required is rather low. The majority of participants at the workshop felt that they gained skills during the process, as they evaluated their position within the matrix higher afterwards. This led me to the conclusion that once users are engaged in the making and design process, they tend to appreciate the freedom of choice and their very own and unique garment.



FIGURE 20
3 page article in the Swedish Martha Magazine

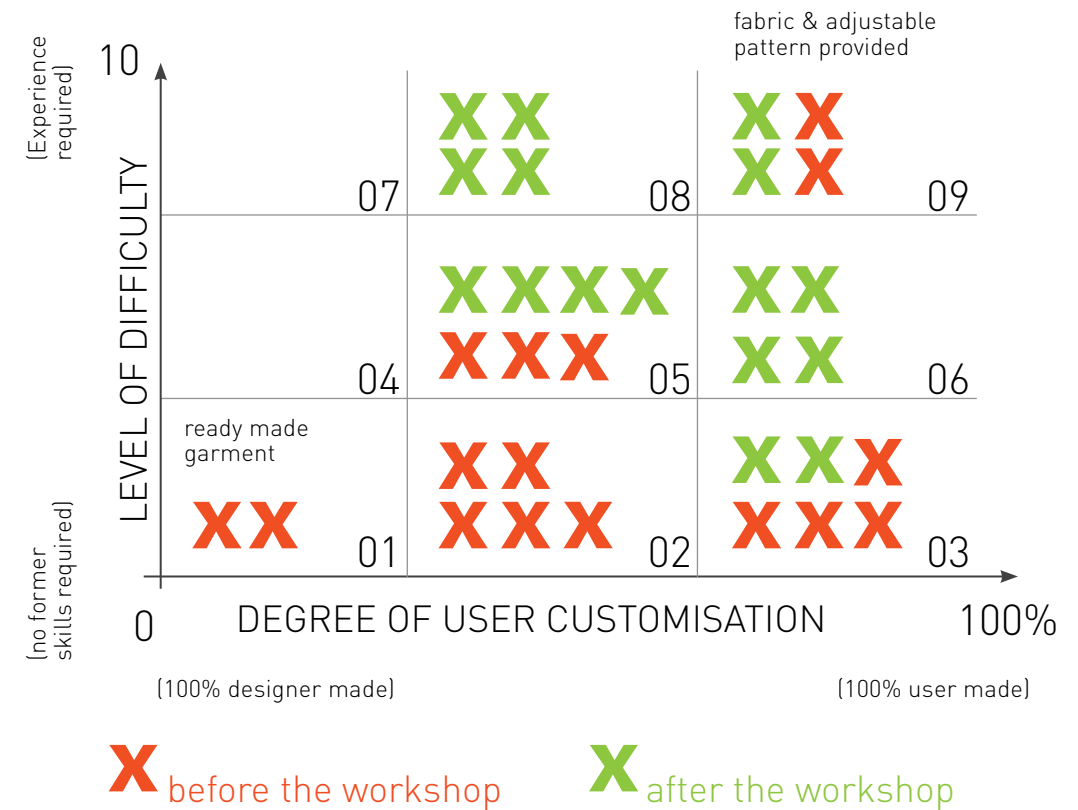


FIGURE 21
Matrix to show preference of half-way product, and self-evaluation of skills before and after the workshop.

The skills gained and the understanding of the product will help in taking good care of the product and redesigning it if desired. Making one's own garment, or in this case co-making it, allows the user to physically experience the time and skills needed to manufacture a piece of clothing. In the best case scenario, a more valued perception of fashion and clothing will be encouraged. The ideal would be that people start creating a bond to their garments, even if they are not self-made. Because we can not expect everyone to have the skills, interest and opportunities to own a solely do-it-yourself wardrobe.

Based on interviews with the workshop participants, I discovered that: when people design and create their own garment, they become aware of the difficulties during the production process. Therefore, participatory design processes and enabling solutions allow the consumer to gain a deeper product understanding. Critical thinking with regard to the garment's history can develop through this personal experience.

PART IV

DISCUSSION &
CONCLUSION

GLOSSARY

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APPENDICES

DISCUSSION & CONCLUSION

This study has explored the possibilities for designers to help people design and make, and thus allow a new sensitivity and respect towards clothes and their production on the part of the consumer.

I discovered that designers can facilitate a joyful participation in clothing production. A comprehensive perspective was ventured on the role that design can play in fostering sustainable consumer behaviour. I illustrated with inspirational examples and my case studies that design can become a tool for change. Different design activism strategies allow the designer to explore new approaches. These strategies can empower the final product user with skills and knowledge for more independence and autonomy from the current fast fashion system. User-involvement in the design process is one such strategy. I facilitated this through half-way products and participatory design workshops. These methods ease the transition towards more sustainable production and consumption. They can enable joyful making and creativity, and thus result in an experience of personal happiness and satisfaction. I identified that through this positive co-creation experience, the user develops a more valued and meaningful relationship towards this co-designed object. This relationship is likely to maintain a longer lifespan for the product.

Reflecting on the experience gained through the three case studies, I see great potential to change consumer behaviour with the participatory aspects of fashion activism. This conclusion led me to elaborate the third case in greatest depth. However, it was also very beneficial to explore other approaches such as consumer education and the production and sales of ethical goods. I am very satisfied with the rich experience I could gather through the different case studies. The results of these case studies reflect that, for a change towards

sustainable fashion and clothing consumption, diverse influential factors regarding the consumers' motivational trigger are important. Therefore, each case study took a different approach to challenge current fashion overconsumption.

This research constitutes a starting point for the exploration of different tools and methods related to design activism applied to clothes consumption. I explored some of the possibilities of involving and motivating people to adopt alternative consumption patterns. A choice of opportunities allows the consumer to approach different levels of commitment. In this way, sustainable consumption behaviour becomes an easy habit, as it becomes accessible and affordable. A combination of diverse strategies can best address the variety of consumers, because each individual requires a different motivational trigger.

For this reason, each project asked for a certain level of consumer self-motivation. With different approaches I resolved the challenge to involve and motivate people in the first place. Identified restrictive factors were time, knowledge, money and especially practical skills. In the third case study for example, the restrictive factor of practical skills was solved through the assistance of designers, and products that were designed half-way. This eased the entry step for less-skilled participants. At first I could observe that some participants felt slightly afraid and overwhelmed by the possibilities presented. Nevertheless, when this first reservation faded, an atmosphere of joyful activity and creative collaboration developed. Therefore, I suggest that designers need to find ways to ease this first step of involvement, by tackling those restricting factors.

EVALUATION OF THE RESEARCH QUESTIONS

This study evaluated different research questions, each of which dealt with a different aspect of changing consumer behaviour towards more sustainable consumption patterns. The case studies had an evolutionary approach, and thus the depth in which they were researched, increased.

The first case study elaborated a first step to getting involved with sustainable consumption behaviour, namely the awareness of the product's origin and of the existence of sustainable fashion choices. Using an online information tool, I explored the possibilities that graphic design offers, to encourage sustainable consumer behaviour through consumer education. The first case study focused on visualizing relevant information in order to make production processes and environmental impacts transparent and understandable to the consumer. The web tool provides an up-to-date method to forward important and comparable information to the user before their purchase. The right amount of information had to be filtered to motivate consumers to take the time to read the data. Therefore I chose to use an interactive tool with short texts, condensed information and supplementary illustrations. This allowed a balance between providing the necessary information required for a deeper understanding and not overly explaining the issue and hence discouraging the consumer. This case study proved that graphic design offers a great opportunity to give information a more interesting platform to be processed and compared by the consumer. Therefore I see this case study as an important illustration of the possibilities of supplementing sustainable consumer behaviour with comparable background data.

The second case study set out to explore how to effectively communicate the local and ethical providence of a product in itself, and thus create a sense of consumer attachment towards it. Working with Uusix Verstaat was an eye-opening experience, incorporating the challenges of local production using the resources given, without sacrificing marketability. Uusix Verstaat offered a great plat-

form to experience the collaborative process within a company setting. This project allowed me to get a first insight into how everyday sustainable design solutions can be applied.

With this project I was on the lookout for design interpretations to communicate the transparency of the production, and create a basis for person-product attachment. I set out to visualize a sense of local identity with Helsinki city inspired textile prints. I attempted to communicate the local and ethical providence of the Uusix products with illustrations of Helsinki's local sights, which then were printed on recycled textiles and manufactured to accessories.

Detailed hang-tags provide the consumer with information about the textile-prints' history and illustrate the ethical and transparent production line. According to the feedback I received from Uusix, the different consumers appreciated the Helsinki prints for diverse reasons, among them the visual connection to the 'home' of the consumer and the product.

The third case study was researched in the most depth. I questioned whether it is possible to create a more valued and meaningful person-product attachment towards a garment with half-way products and participatory design processes. The detailed and positive answers of the questionnaires justified the preliminary conclusion that half-way products are a great possibility to strengthen a valued person-product attachment.

A half-way garment, designed together, will communicate moments of a story, the time consumed to adjust the length, sew the hem and pick the suitable accessories. The sense of mutual cooperation, as well as experiences and feelings as the work progresses, will be captured in this tangible garment. This emotional meaning is not assigned in a fast purchase decision of the consumer; rather, it is a lived story that is made tangible and wearable. Therefore, it seems likely that garments which are entirely self-made gain a higher personal or emotional value.

I was also aiming to evaluate whether this participation in the design process enables a change in behaviour and attitude among consumers. The questionnaire results revealed that most of the

participants found their attitude had changed, while others did not experience any different due to prior knowledge in sewing and sustainable fashion consumption. These positive expectations expressed by the workshop participants lead to the conclusion that design participation enables an attitude change among consumers. Whether it has an influence on their future purchasing behaviour and prolongs the durability of the garments has to be evaluated during a longitudinal research study over a longer period of time.

LIMITATIONS

This study includes theoretical detours in diverse scientific areas and interrelates theory with practice in an unconventional way. This requires the reader to consciously make connections between theory and practical application throughout the entire text. Nevertheless the overall thesis, comprised of both the theoretical framework in the context of current design research and practical methodology as applied in the case studies, has enabled me to answer my research questions satisfactorily and facilitated a great personal learning process, and generated new, interesting questions for further study.

With regard to the individual case studies, each one had to deal with its own limitations, which were discussed in the context of the respective studies. I can point out that a close person-product attachment evolves over a long period of time. For this reason, the success of the handmade Uusix products with their 'Helsinki-prints', as well as the half-way product, cannot be fully measured within the context of this thesis. The same applies to an exact evaluation of behavioural change driven by the workshop experience or consumer education. Nevertheless, the study allows a direct estimation of the immediate success and potential of the half-way clothing.

In view of the small number of participants in the workshops, the scope of this qualitative research and the data gathered could only result in informed discussions rather than empirical conclusions.

RECOMMENDATION FOR FUTURE RESEARCH

Future research could investigate whether attitude and resulting behaviour shifts can be maintained in the longer run. The questionnaire data of the follow-up evaluation revealed a possible change in behaviour, which would need to be evaluated over a longer period of time. This research could also include measurements of the effectiveness of this attitude change. A longitudinal study should be performed which would investigate the use and eventual discard criteria of the garment, as well as signs of a possible behaviour change among the users.

FUTURE PROSPECTS

I intended to contribute to the research accomplished in the area of participatory design and half-way products. Therefore it was beneficial that the results of this research were published in two scientific papers: for the conference 'Crafting the future' held in April 2013 (Hirscher & Niinimäki, 2013) and the Research Journal of Textile and Apparel (Hirscher, 2013).

Additionally, I am continuing with the concept of the Makeable workshops with diverse workshop topics, focusing on upcycling and half-way clothing. During the workshops I want to foster designer-participant and participant-participant information exchange, and thus bring the subject of consumer education and alternatives to mainstream fashion and clothing into central focus. The project is facilitated in collaboration with a fashion designer from 'PaulMalina': Tjasa Avsec and a psychologist: Vendula Johanova. The workshops are held in changing locations in the greater Helsinki region for the period of one year. The concept explores if this new practice has potential as a self-sustaining business strategy. Besides that, the experiment focuses on evaluating the most appreciated concepts to motivate consumers to become active co-designers/co-producers/co-makers of their clothes. Further information is available on the blog: <http://makeable4u.wordpress.com/>.

GLOSSARY

PROSUMER

prosumer

In 1980 Alvin Toffler discussed a trend happening in consumers' role towards consuming goods. He defined the word 'prosumers' as individuals who produce and consume products (Toffler, 1980).

There is a growing trend of different creative communities who experience and evolve new life-style models which foster user-participation in production and design processes (Vezzoli & Manzini, 2008, 33). Active consumers who are looking for the newest, most individual and unique product may also be found in the category 'presumers' (trendwatching, 2012). 'Presumers' in comparison to Tofflers' 'prosumers' are ambitious to influence their products and services at the earliest stage possible, already before they are released to the market (trendwatching, 2012).

CO-DESIGNER/CO-MAKER/CO-PRODUCER

co-designer/co-maker/co-producer

Co-designer, co-maker and co-producer are terms describing the respective role of the consumer/user within new participatory design and production models. New models of designing and making products ask the final user of the product to become an active and involved participant of this creative process.

JOYFUL PARTICIPATION

Joyful participation

Motivating the consumer to become part of the production process must result in a positive experience to be captured as a positive memento within the product. New models of designing and making products require consumer activity and motivation, which can be fostered through a process that can be enjoyed. Joyful participation is used as a guiding aspect to enable person-product attachment. Positive affect, as of enjoyment, happiness and joyfulness have to be encouraged during and after participation in the design process, to potentially entail stronger person-product attachment, and a possible change in consumer behaviour.

DOWNLOADABLE COLLECTION

downloadable collection or patterns

Designers allow the user/consumer to gain a deeper insight in the production processes by offering them access to the "source-code of fashion" (Fashion Hackers, 2013). Fashion designers allow users to customize, and hack their existing patterns, by providing them to download from the Internet. Some labels for example 'Fashion Hackers' (<http://www.fashion-hackers.de/>), or 'diy-couture' (<http://diy-couture.co.uk/>) have an entire collection to be downloaded piece by piece, with accompanying instructions.

CO-SEWING SPACES

co-sewing spaces

Co-sewing spaces represent the idea of a constantly available space, where sewing machines and advice from skilled sewers or designers are found in one place. For example, co-sewing space 'Nadelwald' in Berlin offers workshops and space for makers who do not have facilities or knowledge to start by themselves. Those spaces ease the shift from buying towards doing things, and also encourage the social and collaborative aspect of making things together.

HALF-WAY PRODUCT

half-way product

A half-way object is designed as unfinished by intention. It opens up the means to the users of finishing it according to their preferences. Thereby, unique products can be created, which empower the user to gain a deeper understanding of the products' functionality.

READY-TO-MAKE & READY-TO-WEAR

'ready-to-make' & 'ready-to-wear'

'Ready-to-make' garments require a certain degree of user-participation. At the stage of purchase, 'ready-to-make' products are prepared to a level which asks the consumer to become an active participant in the design and making process. In comparison: 'ready-to-wear' garments are products which can be worn right after purchase. There is no additional physical or creative work from the side of the consumer required.

FASHION HACKTIVISM

fashion hacktivism

Fashion hacktivism uses the language of computer hackers. The designer opens up the source-code and secrets behind the patterns of fashion brands, to democratize and share knowledge. This strategy empowers the consumer to understand the strategic methods behind styles and thus allows them to encode, and hack the existing towards new, improved and personalized products.

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IMAGES

All images are taken by the author, if not otherwise identified.


APPENDICES

Appendix 01

Questionnaire to evaluate the workshop participation and the perception of the half-way product.

QUESTIONNAIRE

Aalto University
School of Arts, Design and Architecture



The purpose of this research:
My name is Anja-Lisa Hirscher, Master student at the Aalto University School of Arts, Design and Architecture. I am currently studying Creative Sustainability in Design, and with this workshop and questionnaire I hope to collect valuable data which will be used as a base for the research related to my final Master's Thesis dealing with the topic: **'Motivating sustainable consumer behaviour with participatory fashion design.'** I would appreciate your honest opinion and thoughts about your experience working within the workshop and the provided half-way clothing.

Your survey responses will be strictly confidential!

For the successful completion of this research, this questionnaire will end with a few follow-up questions which I will send via e-mail to each participant. For this reason I kindly ask you for your email address and to fill out the following standard code for reasons of identification and comparison.

Please leave your email address here:

Code:

1. first letter of your father's first name

2. first letter of your mothers first name

3. Month of birth in two numbers

4. Number of siblings in two numbers

5. Last letter of your own surname

Example:

First name father: Ralf

First name mother: Erika

Month of birth: March

Number of Siblings: 1

Own surname: Schmidt

Code: R E 03 01 T

Please calculate your Code here:

Thank you very much for your cooperation!

2

GENERAL QUESTIONS:

Gender: ☐ female ☐ male

Age: ☐ 12-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56-65

Did you have sewing experience beforehand:
YES ☐ a) I have used the sewing machine several times (10 times or more)
☐ b) I have tried it once or twice with the help of a friend, family member, workshop
☐ c) I sew things regularly.
NO ☐ d) I have never used a sewing machine/needle and thread before this workshop.

With which product where you working?
(Please see the number attached to your Half-way Product.)

FASHION

Q1: Do you have an absolute favourite garment in your wardrobe?
If yes, what makes it special to you? (Check all that apply, several answers are possible)

☐ a) material ☐ d) personal fit

☐ b) colour ☐ e) quality

☐ c) shape ☐ f) other:

Q1.1: Do you feel yourself especially good wearing it?

☐ a) Yes, I feel especially pretty & self-confident with it.

☐ b) Yes, because it is a very comfortable garment.

☐ c) No special reason.

☐ d) Other, please specify:

Q1.2: Has it a personal meaning to you?
(Check all that apply, several answers are possible)

☐ a) personal happening or event

☐ b) memory of a place where you worn it

☐ c) memory of a place where you bought it

☐ d) memory of who made it

☐ e) other, please specify:

3

Q2: How is your relationship to fashion?

☐ a) Good, I think its part of our culture.

☐ b) Good, I enjoy dressing myself in new ways every season.

☐ c) Rather bad, I feel a big pressure of changing clothes very often.

☐ d) Neutral, I do not care very much about fashion trends.

☐ e) Other, please specify:

Q2.1: Do you enjoy shopping for new clothes?

☐ a) Yes

☐ b) No

☐ c) Sometimes

Q2.2: Approximately how often do you go and buy new items?
(Once a week, once a month, every 3 months, other...)

Q3: Do you follow current fashion trends very closely with
e.g. Magazines, TV, Internet (Blogs, Forums...)?

☐ a) Yes

☐ b) No

☐ c) Sometimes

Q4: Where do you buy your clothes?
(Check all that apply, several answers possible)

☐ a) Stores, shopping Mall

☐ b) Online

☐ c) Fleamarket

☐ d) Second Hand

☐ e) Clothes Swapping/ changing with friends

☐ f) Other, please specify:

EXPERIENCE AND MAKING

Q5: What were the reason to attend the workshop? (Check all that apply, several answers possible)

☐ a) I have attended a similar workshop before.

☐ b) I am interested in the sustainability issue of fashion.

☐ c) I am interested in fashion design.

☐ d) I had a day off.

☐ e) I want to be able to design and make my own clothes.

☐ f) I don't always find what I am looking for in the store.

☐ g) Other please specify:

Appendix 03
downloadable sewing instructions for one of the half-way tunics.

tunic 02



| | |
|---------------------------|--|
| approx. time to finish | 1-2 hours |
| level of difficulty (1-5) | 2-4 |
| materials | soft floating textile 1.6m x 1.6m accessories e.g. buttons, ribbons, belt |

description
This tunic offers plenty of options to wear and customize in different ways. The upper part around the neck can be made as a waterfall collar, or using a tunnel and cord to drape it nicely on the shoulders. The lower part can be adjusted in length and width as preferred. The same applies for the arms, they can be made wide-floating or seamed with a suitable fabric.

Instructions from the beginning:

- 1) Fold the fabric so you can place the the pattern following the straight grain.
- 2) Pin the front and back pattern on the break line, and add 1cm- 2cm of fabric in addition to the pattern (inlay) when cutting it. Mark with a pin the end of the armholes. (Leave up to 3 cm of inlay if you wish to create a tunnel for a gathering on the shoulders.)
- 3) Seam the neckline at the front and back as a first step.
- 5) Afterwards close the shoulders: Place front and back piece right/correct side on top of the right side and then sew them together. If you wish to have a tunnel, leave 2-3 cm inlay.
- 6) **Tunnel:** iron the inlay on to both sides of the shoulder seam, then iron the edge over as well, so you can create a clean seam. Sew the inlay on to both sides of the shoulder seam, creating a little fold when before the neckline starts. Then pull in two strings of your choice, and sew them each with a few stitches at end of the tunnel where the neckline starts.
- 7) Seam the armholes by folding them over twice, then iron, pin and stitch until the mark. The seam should become thinner towards the lower end of the armholes.
- 8) Close the sides, if possible with an overlocker.
- 9) Make the seam at the bottom of the tunic. Same way as the armholes.

For more detailed instructions and other variations please ask Anja for help.

